

NATIONAL LIBRARY OF MEDICINE
Bethesda, Maryland

Gift of

Worth B. Daniels, Jr., M.D.

In memory of his father

Worth B. Daniels, M.D.



B



THE
DYSPEPTIC'S MONITOR;

OR THE
NATURE, CAUSES, AND CURE

OF THE DISEASES CALLED
**DYSPEPSIA, INDIGESTION, LIVER COMPLAINT,
HYPOCHONDRIASIS, MELANCHOLY, ETC.**

BY S. W. AVERY, M. D.

Optimum autem est, ejus modi hominibus præservationem, à priori injungere, in
regimine et diætâ, atque illos ab abusu talium dehortari.—*Stahl*.

NEW-YORK: E. BLISS, 111 BROADWAY.

1830.

HMD
VVI
A9551
1830
C. 2

Southern District of New-York, ss.

BE IT REMEMBERED, That on the thirteenth day of August, A. D. 1836, in the fifty-fifth year of the Independence of the United States of America, ELAM BLISS, of the said District, hath deposited in this office the title of a book, the right whereof he claims as proprietor, in the words following, to wit:

"The Dyspeptic's Monitor, or the nature, causes, and cure of the diseases called dyspepsia, indigestion, liver complaint, hypochondriasis, melancholy, etc. By S. W. Avery, M. D. Optimum autem est, ejus modi hominibus præservacionem, & priori injungere, in regimine et diætâ, atque illos ab abusu talium dehortari.—Stahl."

In conformity to the act of Congress of the United States, entitled "an act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the time therein mentioned." And also to an act, entitled "An act, supplementary to an act, entitled an act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned, and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints."

FREDERICK J. BETTS,
Clerk of the Southern District of New-York.

PREFACE.

If an apology were necessary for coming before the public with a work of this sort, the mere fact that we are indebted to Europeans for all the best treatises on indigestion within the reach of the general reader, might be considered sufficient, while our climate, peculiarities of diet, habits, and modes of living, unquestionably exercise a powerful influence upon our constitutions, and give a character to many of our diseases, appreciable only by a resident in the country.

The great prevalence of indigestion among us renders it a subject of more or less interest to almost every individual, as there are very few in easy circumstances who have not occasionally suffered from some of its forms, or who have not connex-

ions or friends whose lives are embittered by it. How many drag out a miserable existence in consequence of perpetual headaches, heartburns, acidities, pains in the side, and a thousand nervous ailments depending upon bad digestion, which are made doubly oppressive by the melancholy depression of spirits and blue devils that inseparably accompany them? How many naturally mild and amiable tempers are rendered sour and irritable, and, at times, totally unfit for society? How often is the once gay and buoyant spirit, which imparted cheerfulness and pleasure to the friendly circle, borne down by all the corporeal ills which the diseased imagination can paint? How often is the man of business compelled to sacrifice the brightest prospects and most lucrative employments, and driven an exile far from all the comforts and tender endearments of home, to recover the lost tone of his stomach? Or, not possessing the means of travelling, after having swallowed half the preparations of the apothecary with no permanent benefit, and harassed and goaded on to despair as by an infernal fiend within his own bowels, looks to death as the only certain remedy for his sufferings; and perhaps, at last, in some hapless moment puts a violent end to them—never suspecting that

they might be removed by a proper diet and regimen, and almost without the aid of medicine?

In consequence of repeated attacks of intermittent fever, and the great fatigue, irregular diet, and want of rest, inseparable from an extensive country practice, the author was for several years subject to a great variety of distressing symptoms, occasioned by indigestion. As may be supposed, he consulted the best treatises on the subject, and took almost every medicine recommended by them, but all without essential benefit. At last, fully convinced of the entire inefficacy of medicine without a suitable regimen, which his professional duties rendered impracticable, and anxious to get rid of the depression of spirits connected with his complaint, he relinquished business and embarked for Europe. He visited a large part of Great Britain and Ireland, resided some time in France, and travelled in Switzerland, Italy, and Sicily. During this time he enjoyed perfect health; but as may be imagined, did not forget his former maladies: on the contrary, he spared no pains in examining the peculiarities of diet and habits of the people of the countries he visited, and the greater or less prevalence of indigestion among them; in a word, collecting all the information on the subject in his

power. On his return home, he was soon revisited by his old enemy, which convinced him that the usual American mode of living would in a short time place him where he was when he left it, and that though he had acquired by travelling an exemption from his complaints, he had not altogether recovered the youthful tone of his stomach. A little admonition was sufficient : he at once regulated his mode of living upon principles which will be laid down in the course of this work, and has ever since enjoyed a degree of health which he believes is surpassed by few, if equalled by many professional men.

From what he has seen and experienced in his own person of a disease the most dreadful in its effects upon the temper, feelings, and spirits ; a disease that seldom if ever obtains its due share of sympathy, because it is neither seen nor can be fully conceived by those who have never actually felt it, but is too often treated with unfeeling contempt, or aggravated by ridicule ; he is induced to present this little volume to the public in the hope of lessening the sum of human suffering, and only requests the reader to give a fair trial to the rules it contains before he judges of their value.

The time has been when it was customary for physicians to denounce all medical treatises intended expressly for the general reader, upon the grounds that they can impart but an imperfect knowledge of the subject to which they are devoted, and are calculated to fill the mind of the invalid with false notions of his own case ; to encourage his tampering with medicine, and to give him unnecessary alarm by causing him to fancy that he has all the complaints which they describe ; finally, that it is the province of the medical man only, to think or reason upon the nature, causes, and treatment of diseases. That all this may be correct to a certain extent, will not be disputed. But shall we forego the countless benefits of a general diffusion of knowledge, for fear that some few individuals will be rendered less happy by it ? Will any one have the hardihood to assert, that it is not desirable for every rational being to be acquainted with the antidotes to poisons, and the best method of escaping contagion ? Or that the cause of humanity may not be served by pointing out the destructive tendency of drunkenness, the diseases it produces, and the precise manner in which it produces them ? If it be desirable then that all should be instructed in these matters, is it not equally so that the thousands who are

pinning away with diseases, either produced or kept up by the quality or quantity of their food or their habits or modes of living, should be made acquainted with the real causes? It is by the general diffusion of correct notions that the *Journal of Health* is rendering an essential service to the community at large, and will doubtless accomplish much toward lessening the labours of the physician, by preventing his prescriptions from being so often thwarted by the wayward prejudices of his patient.

Though these pages are devoted to the general reader, the author hopes they will not be altogether unworthy the attention of his brethren of the profession.

NEW-YORK,
35 Dominick-street, August, 1830.

CONTENTS.

INTRODUCTION.

Description of the digestive organs; mouth; esophagus; stomach; intestines; liver; pancreas; spleen; nature and properties of the gastric juice and bile; explanation of the digestive process; names given to derangement of the digestive organs; functional derangements divided into three species	ix
--	----

DERANGEMENT OF THE DIGESTIVE ORGANS.

The savage and civilized man compared; prevalence of derangement of the digestive organs among the different classes of society; first symptoms of indigestion; explanation of symptoms; digestive powers of man weakened by refinement; of animals by domestication	21
--	----

FIRST SPECIES.

Persons most subject to it; symptoms; explanation of symptoms; source of acidity; stomach; food; opinions of Prout, Chevreul, Tiedemann, and Gmelin, and Leuret and Lassaigne on the nature of the acid; effects of the acid on the stomach; fermentation of the food; acid increased by substances which irritate the nerves; stomach becomes morbidly irritable, and liver and bowels deranged	25
--	----

SECOND SPECIES.

Symptoms; effects of unhealthy bile; relief obtained from a cathartic	34
---	----

THIRD SPECIES.

- First and second form ; symptoms ; great irritability of the stomach and bowels ; affection of the mind ; blue devils ; hypochondriasis, &c. ; danger to be apprehended from want of sympathy in the friends ; connexion between the digestive organs and mind ; sympathetic affection of different parts ; poisonous influence of morbid bile ; peculiar appearance of the evacuations 39

CAUSES.

- Extremely numerous ; divided into physical and moral . . . 52

PHYSICAL CAUSES.

- Effects of indulgence at a single meal ; too much may be eaten by eating too often ; consequences ; anecdote of Dr. Gregory ; indigestion more prevalent in America than in any other country ; difference of climate ; mode of living ; impression made upon strangers ; boarding-houses a source of indigestion ; American breakfasts ; eating without an appetite ; fasting too long ; effects of too hearty food ; popular notions respecting animal food ; eating too fast ; spirituous liquors ; want of fresh air ; effects of intermittent fevers ; habitual costiveness ; tobacco 54

MORAL CAUSES.

- Grief ; disappointment, &c. 81

TREATMENT.

- Diet all important ; exercise 82

TREATMENT OF THE FIRST SPECIES.

- Necessity of an appetite ; diet of animal food ; of bread, milk, &c. ; effects of each upon the author ; solid and fluid articles of diet ; milk ; gruel, &c. ; bread and milk advised ; eggs and rice ; quantity to be eaten ; signs of having eaten too much ; drink ; water the best ; time necessary to adhere to this diet ; medicine ; carbonate of soda ; carbonate of iron ; pills to prevent costiveness ; enlarging the bill of fare 88

TREATMENT OF THE SECOND SPECIES.

- Diet; oatmeal gruel; bilious attack; cathartics; blue pill;
 Sponging with water containing nitric and muriatic acid;
 pain in the side, &c.; tonics; state of the skin; warm
 bath; sponging with vinegar and water; clothing . . . 103

TREATMENT OF THE THIRD SPECIES.

- Diet; state of the bowels; cathartics; lunar caustic; a
 case; moral treatment 111

CONCLUSION.

- Habitual costiveness; cough; white mustard seed; sham-
 pooing; waters of Saratoga and Balston; travelling; sea-
 voyage 119

APPENDIX.

- Digestible and indigestible, relative terms; animal food;
 circumstances which render it digestible or indigestible;
 boiling, roasting, and broiling; baking and frying; condi-
 ments; salt, pepper, &c.; fish; shell-fish; eggs; milk;
 farinaceous food; bread; rice; the potatoe; fruits;
 drinks; toast-water and barley-water; gruel; coffee and
 tea; chocolate; cider; malt liquors; wines; spirits . . 131

INTRODUCTION.

IN order to be perfectly understood in the course of this work, I shall first give a brief outline of the process of healthy digestion, or that change which our food undergoes in being converted into nutriment for the body ; referring those who wish to examine the subject more fully, to the systematic works on Physiology. The organs concerned in this process are, 1st, the mouth, the esophagus or gullet, the stomach, the small intestines and the large intestines, constituting one continuous tube of unequal dimensions in different parts, and called when taken together, the alimentary canal ; 2d, the liver, pancreas, and spleen. In man the length of this canal is five or six times that of the whole body ; in herbivorous animals it is comparatively much longer, being adapted to the nature of their food, as its nutritious particles are so mixed with innutritious matters, that the whole must necessarily pass over an extensive surface before the former can be separated from the latter. In carnivorous animals,

on the contrary, it is shorter, as their food is more entirely converted into nutriment, of course when digested, more readily taken up by a smaller surface. Man holds a middle station, and is calculated to subsist on food of all sorts, or on vegetable or animal exclusively. Many savage nations in mild climates live on fruits and roots; the Hindoo chiefly on rice and maize, without ever tasting flesh. On the contrary, others live almost entirely on the flesh and fat of animals, as the Greenlander. Thus nature has wisely ordained that man, who inhabits every climate and quarter of the globe, should be enabled by the construction of his organs, to draw nourishment from almost every part of the vegetable and animal kingdoms, to subsist amid the gloomy horrors of the polar regions upon the strong fat with which the animals of those seas abound, or broiling beneath an equatorial sun, to cool and refresh his system with the luxuriant fruits so profusely furnished at his hand. The esophagus is that portion of the alimentary tube extending from the mouth to the stomach. It is surrounded with muscular fibres which, by contracting, convey the food to its lower extremity; and it is lined with a soft membrane which secretes a bland fluid called mucous, which sheaths and protects the surface from the action of substances passing over it, at the same time lubricates them, and facilitates their passage to the stomach.

The stomach is compared in shape to a bent cone or a common powder-horn, with its large extremity placed in the left side, and its smaller extending towards the right. The esophagus opens into the large extremity, and this opening is called the upper orifice, while the place where the small extremity ends and the intestines commence, is called the lower orifice. It is composed of several coats or layers, the most important of which are the outer or smooth shining coat common to the stomach, intestines, &c. A middle coat composed of muscular fibres capable of contracting with considerable force, and an inner one of a soft delicate texture, imbued with mucous like that of the esophagus, and in which the vessels terminate, which secrete a peculiar fluid, called the gastric juice. The intestines are divided into small and large, the former being about four times as long as the latter, and have three principal coats resembling those of the stomach. The inner is also covered with mucous, and contains the mouths of a set of vessels called lacteals, whose office it is to take up the nutritious parts of the digested food, and convey them to the blood. The first portion of the small intestines is named duodenum from its not exceeding twelve inches in length, is larger than the rest, its muscular coat thicker and stronger, and it has been called by some the second stomach, because what is termed the second stage of digestion,

takes place in it. The large intestines differ principally from the small in being about twice as large, and are marked by muscular bands, which give the appearance of being divided into cells. The whole extent of this canal is abundantly supplied with nerves, but which, in a healthy state, (by a peculiar law of the animal economy governing all those organs necessary to life, and not subject to the will,) convey no distinct sensations to the brain. The upper orifice of the stomach is far more sensible than any other part of it, and is generally the seat of uneasiness when the stomach contains irritating substances. Connected with the alimentary canal, and the digestive process, is, 1st, the liver, (which it is unnecessary to describe,) which secretes the bile, and discharges it into the duodenum by the bileduct during digestion, and when not thus required, into the gall bladder, or biliary reservoir; 2d, the pancreas, a gland situated behind the stomach, which secretes a fluid not unlike saliva, and pours it into the duodenum along with the bile; and 3d, the spleen, attached to the large extremity of the stomach, whose office is not perfectly understood. Before proceeding to describe digestion, it will be necessary first to examine the properties of the gastric juice, and the bile, two important agents in this process. The gastric juice is, when pure and healthy, thin and transparent, and not easily distinguished by the senses, from

saliva. In man, and most of the vertebral animals, it is asserted by some of the most respectable physiologists and chemists, to be slightly acid. It coagulates milk ; hence the curdled state in which it is often thrown from the stomachs of infants, and the use to which the stomach of the calf is applied in manufacturing cheese, is known to every one. But its most remarkable properties are its power of dissolving almost all substances whether vegetable or mineral, and of counter-acting putrefaction. The gastric juice of the dog dissolves ivory and the enamel of the teeth ; that of many birds, the precious stones and the most insoluble of the metals ; even out of the stomach, it dissolves most kinds of solid food, if kept at the temperature of the body, as has been proved by numerous experiments. Putrid aliment is immediately restored by it to a state of sweetness, and the most loathsome carrion a dog can be made to swallow, is soon found on opening him, to have lost all its putrescency. When we take into consideration the wonderful powers of this fluid, we are no longer astonished at many of the tricks of the mountebank, or the trifling inconvenience apparently experienced by the knife eater. The bile also acts a conspicuous part in the digestive process, and not unfrequently deranges all the organs concerned in it by its deviations from a healthy state. One of its peculiar properties is that of uniting with, and dis-

solving fat or oil, which is the part of our food least acted upon by the gastric juice ; hence the use of ox gall in removing grease spots from cloth, and for other purposes to which it is applied in the arts. If a dog be made to eat food containing a large quantity of oil, and then killed and opened while digestion is going on, the oil is seen floating among the contents of the stomach, but is converted into a sort of soap by the bile in the duodenum. It neutralizes acids. As will be seen in the explanation of digestion, the food becomes slightly acid during this process in the stomach, but loses this character as soon as it receives the bile. It appears to be the principal agent in changing the chyme into chyle by separating the nutritious from the innutritious parts, so that the one may be taken into the circulation while the other is expelled, and probably its stimulating power keeps up the natural action of the bowels, and gives to the discharges their colour.

The process of digestion is briefly this :—the solid food is first prepared for the action of the stomach by being masticated, or broken down and mixed with saliva in the mouth. The necessity of mastication depends very much on the solvent power of the stomach. In some animals, as the dog, the food is swallowed in large morsels without chewing, and there are individuals of the human species who can do the same with

impunity, at least for a time ; but in proportion as the human stomach differs from the canine in this respect, the necessity of thorough mastication is increased : in weak stomachs digestion cannot take place without it. When a full meal has been taken, the vessels of the stomach are excited to pour out the gastric juice, which commences dissolving the mass. According to Dr. Philip, this takes place to the greatest extent in the large extremity. A greater quantity of blood is drawn to the stomach from the rest of the body to supply the secretion, which in weak persons often occasions a slight feeling of chilliness, and the demand upon the brain for nervous energy produces an inclination to sleep. While the dissolving of the food is going on, for some time the lower orifice of the stomach is closed by the contraction of its muscular fibres ; thus preventing the undigested substances from entering the bowels, until the stomach begins to contract upon its contents, and gradually move the dissolved parts through this opening into the duodenum, when the upper orifice is closed, to prevent regurgitation into the mouth. The contractions of the stomach last till its contents are all expelled, which for an ordinary meal commonly takes four or five hours, and sometimes longer. The food, when it passes the lower orifice, has become changed into a soft pulp called chyme, and is decidedly acid, as ad-

mitted by almost all modern physiologists. That the solution of the food is effected by the action of the gastric juice alone, has been satisfactorily proved by a great variety of experiments: among which, that of enclosing bits of meat in small metallic spheres, perforated with holes, and swallowing them, should of itself be considered conclusive, as the spheres are at last voided empty. The process as above described, is performed without any feeling or consciousness of what is going on, except a certain pleasurable sensation which diffuses itself over the whole body. And here let me remark, whenever we feel our food after eating, or experience the least uneasiness from it in the stomach, we may be sure our digestion is not performed in a healthy manner. As soon as the chyme enters the intestines, it is mixed with the bile and pancreatic fluid, by which it is rendered much thinner; its acid is neutralized by the bile, and it takes the name of chyle. In passing through the small intestines, the fluid and nutritious parts of the chyle are taken up by the innumerable little vessels, called lacteals, and conveyed to the blood to supply the wants of the system, and the remaining innutritious parts are carried into the large intestines, and after a short sojourn, discharged. This then is a hasty sketch of that exceedingly curious operation, by which we convert a vast variety of substances taken from the vegetable

and animal kingdoms, into an integral part of ourselves. As the body is constantly undergoing a change, which may be called decay, it has as constantly need of a fresh supply of proper materials to keep it in repair; and hunger and thirst are nature's monitors to warn us of this necessity, while the obeying their commands constitutes by far the largest proportion of the pleasurable sensations of existence. The various deviations from healthy digestion, or rather the derangements of the natural office of the digestive organs, have been called dyspepsia, indigestion, stomach complaints, bilious and nervous complaints, hypochondriasis, morbid sensibility of the stomach and bowels, &c.—all of which names are more or less applicable to certain forms of these derangements, without any one of them being proper to convey an idea of the whole. For though no great derangement of the function of one portion of the alimentary canal can long exist without in a greater or less degree affecting the others, by reason of the intimate connection subsisting through the whole extent, yet there may be considerable derangement of the stomach for a time, without materially implicating the liver or bowels, and on the contrary, derangement of these latter organs of the most melancholy kind, may exist without marked indigestion. It will at once be conceived that the function (or office) of an organ must be deranged when

its healthy structure is altered by disease, which is called organic derangement. The function of an organ may also be deranged without any change in its structure, constituting functional derangement. Thus the function of the liver is to secrete a certain quantity of bile; but from the action of a variety of causes without the least discoverable alteration of structure, it may form an undue quantity, and that of an unhealthy quality, which is derangement of function. It is only of functional derangement of the digestive organs of which I propose to treat, and which, (though the symptoms characterizing the several kinds are variously combined and blended so as to form a vast variety of shades,) I have generally noticed under three distinct forms, as certain symptoms have predominated, and which for the sake of distinction I shall consider as three species. The first species is in a great measure confined to the stomach, and marked by symptoms denoting weakness of that organ, often existing without any material derangement of the liver or bowels. In the second there is a predominance of symptoms termed bilious, with more or less derangement of the stomach and bowels. Both of these species are commonly called indigestion, dyspepsia, stomach and liver complaints, &c. The third is marked by symptoms indicating a morbid sensibility or irritability of the inner surface of the sto-

mach and bowels. In some cases under this head, the digestive powers of the stomach are not perceptibly impaired, but distant parts of the body and the mind suffer so severely from sympathy, as often to be mistaken for the seat of the disease. Under this species may be placed melancholy, hypochondriasis, and a long catalogue of complaints termed nervous. As I have just stated, the symptoms characterizing these species, may be variously combined. Thus the first and second species may exist in the same individual, or the second and third. But the great majority of cases may be arranged without difficulty under one or other of these heads, as the signs of derangement of the different organs predominate.

DERANGEMENT OF THE DIGESTIVE ORGANS.

“Health consists in regularity of the various functions; disease in their irregularity; death in their cessation.”

MAN in the savage state is governed by the simple dictates of nature. The slave of no fixed rules, and regardless of particular periods, he satisfies his keen appetite with such food as comes most readily within his reach, and slakes his thirst at the first running stream. Accustomed to the inclemencies of the seasons from his earliest moments, his frame like the oak of his forests, acquires by exposure the maximum of strength, and his nerves are braced to the most severe exertions. A stranger to lingering complaints, he feels no pains but from fatigue, no uneasiness but from hunger and thirst, and is at last promptly cut off by some acute malady, or falls by the casualties of war or the chase. But what a striking reverse of all this is presented by civilization and refinement. The dictates of nature are either stifled or disregarded, the palate is coaxed and pampered by every variety and delicacy the inventive genius of man can conceive,

and the pure spring gives place to the fermented draught, the rich juices of the grape, or the more pernicious products of distillation. Cautiously protected from the weather during infancy, and fostered by the tender hand of misplaced affection, the system becomes sensible to the most trifling changes, and shrinks from every puff of wind. The diseases to which it is subject are rendered doubly frequent, and new ones produced *ad infinitum*, and the outlets of life are increased so thick about us, that it is only astonishing we escape death so long. But above all, the class of diseases now under consideration, is occasioned entirely by the diet, habits, and modes of life introduced by civilization, and is never known in the savage state. The careful observer may trace it from the cottage of the hardy labourer, where it is comparatively, but seldom found advancing *pari passu* with refinement through all the different grades of society, to the palace of the rich, where he meets it at every step. With the peasant it is generally the consequence of vice and intemperance. The mechanic is often its victim from confinement and bad air, it lies concealed among the rich viands of the opulent, presides at the nocturnal orgies of the bacchanalian, hovers about the student's midnight lamp, and is the inseparable companion of grief and disappointment, and every kind of immoderate mental excitement. An immense proportion of that class of the community not actually engaged in any laborious employment, and many of those who are, experience after eating, (though in moderation,) certain ordinary articles of food, a feeling of uneasiness at the pit of the stomach.

This uneasiness occasions an inclination to swallow and expel air, or what is termed belching. The air thus expelled is often hot and acrid, not unfrequently bringing along with it a little pungent acid fluid, and a sensation of heat or burning is perceived in the stomach. This is what is understood by heartburn, and usually subsides in a little time, or yields to a glass of cold water or some other trifling remedy. At other times the uneasiness is more considerable, and at some of these efforts to belch, a large quantity of hot, acid, or bitter fluid is thrown up with some temporary relief. If the food taken happens to have been fat or oily, as fresh pork or roasted duck, it imparts its peculiar flavour to the eructations which generally contain more or less oil, and small portions of undigested food. The stomach feels inflated, and gas is discharged upward at intervals, with momentary relief. Sometimes the disturbance going still further, a retching is excited, and a portion, or perhaps the whole of the contents of the stomach are thrown up. The appetite is but little, if at all impaired for the next meal, and the same thing does not again occur till produced by a similar cause. There are other persons, who instead of the foregoing phenomena, experience pain of the head, restlessness, general uneasiness, sense of weight at the stomach, and a thousand indescribable feelings from the same cause. When there are many articles that disagree in this way, the person, though in every other respect healthy, is said to have a weak stomach. The explanation of all this is very simple. We have seen in the introduction, that the stomach, possessing its natural power, dissolves readily almost

all kinds of food ; but it is enervated by refinement, as well as most other parts of the animal machine, and consequently we find, that in many individuals the gastric juice is not sufficiently strong to dissolve certain kinds of food, or in other words, they are too indigestible for them. Many of the animals we have domesticated, show the same diminution of the energies of the stomach. For instance, my lady's pet dog, that never quits her side, is sure to be sickened by feeding upon the food which his more hardy brother, the companion of the peasant, takes with impunity. If the food is not readily digested from the effects of combined heat and moisture, it runs into speedy fermentation. Gas is disengaged, and inflates the stomach ; acid is generated, and the fat or oil of the food, of which the fluidity is increased by the elevated temperature, rise to the upper part of the stomach mixed with the acid matters, and irritating the superior orifice, the most sensible part of the organ, occasion all the phenomena just mentioned. Exactly the same effects will be produced in the same individuals by overloading the stomach with food, which it can easily dissolve when taken in moderate quantity. For then it is too much distended to contract properly upon its contents, and is unable to furnish the quantity of gastric juice required. Of course, fermentation and its unpleasant consequences must follow. Sometimes there are portions of the food from not being sufficiently masticated, that are neither dissolved by the gastric juice, nor undergo fermentation ; such as bits of apple and other fruits, and are at last discharged unchanged, after occasioning more or less disturbance

in the bowels. When from the operation of causes which will be treated of in the sequel, acidity, heart-burn, or uneasiness of any kind, is constantly experienced after eating, the person is said to have indigestion or dyspepsia. The same names are commonly given to a great variety of distressing affections, some way connected with the digestive process.

First Species.

The first species occurs in persons of all ages after puberty, in all classes of society, though by far the most frequently among those in easy circumstances; oftener in females than males, and is peculiarly the scourge of those devoted to literary pursuits. It sometimes continues for years with periods of trifling amendment, and relapse without seriously effecting the general health, or materially impairing the constitution. Its most striking features are almost incessant dull headache, flatulence, an uneasy gnawing sensation in the stomach whenever it is empty, and constant acid eructations after eating. In the morning there is often an unpleasant taste in the mouth, and the tongue is slightly coated, especially near the root. If the breakfast is deferred for an hour or two, there is dull pain over the eyes, a gnawing feeling in the stomach, and occasionally a great flow of saliva into the mouth, which is swallowed every moment, or induces constant spitting. This last symptom is rarely noticed, unless the dyspeptic is a very attentive observer of his own feelings, or is questioned respecting it, but will be very frequently found to accompany great

acidity. The breakfast, if not too early, is eaten with tolerable appetite ; but in half an hour, the mouth is again inundated with saliva, there is a sensation, as if some hard body were contained in the stomach, or as if it were distended with confined air ; and the invalid can scarcely refrain from swallowing air, and belching it up again. At length, a considerable quantity of hot, acrid, ropy fluid is brought up, watery and acid if the breakfast has been only bread or toast, with tea or coffee and thick and oily, if of animal food. There is a hot uncomfortable feeling in the stomach, and what is brought up is often so acrid as to occasion smarting of the throat. Not much of the solid food is ejected by these eructations, unless a large quantity of drink has been taken, nor is nausea or vomiting often excited. After a meat breakfast, the forehead often feels hot and painful, with general listlessness, and aversion to exercise, though this is not constant. These symptoms usually last for an hour or two, and then subside. If there is an interval of five or six hours between breakfast and dinner, the headach and uneasiness in the stomach return. Sometimes there is a sense of coldness in the stomach, and sometimes heat is felt flashing from the stomach to the bowels, in a manner quite indescribable. The dinner is eaten with more or less appetite, in proportion to the time that has elapsed since breakfast, and the exercise which has been taken ; and if not too fluid or oily, is the meal of all others, that sits best on the stomach. On the contrary, if it be made up of rich soups, articles containing drawn butter, or much oil, as ducks, geese, fresh pork, &c., and a great quantity of any fluid, all

the symptoms which followed the breakfast return, and often in a greater degree of severity. If the stomach has been roused to digest the articles enumerated, by a liberal use of strong wine or brandy, there will be less disturbance for the time ; but the dyspeptic commonly pays for it next day with interest. Drowsiness and heaviness of the head usually follow a dinner, that from its quality or quantity is difficult of digestion. After four or five hours, tea, and a bit of toast, or bread and butter are taken, not exactly with what may be termed appetite, but an uneasy gnawing feeling at the stomach, usually mistaken for appetite, and is often the cause of a renewal of the eructations, &c. If supper be eaten, the invalid soon finds himself hot and restless after going to bed ; is tormented with flatulence and eructations, and after a wretched night of tossing from side to side, and little or no sleep till towards morning, rises with headach, furred tongue, thirst, and other feverish symptoms. Notwithstanding all this disturbance in the stomach, the bowels often continue nearly regular, and the action of the liver not seriously deranged, particularly in those who spit up the offending fluids most freely. For though this is an unpleasant symptom of itself, I have remarked that they suffer less than those who have all the other signs of acidity, without the copious eructations, for in them the irritating matters passing through the bowels, occasion much more derangement ; such as colic pains, diarrhœa, alternating with costiveness, &c. Persons affected in this manner, are commonly thin, but not greatly emaciated ; though I have seen them in hundreds of instances retain a tolerable degree of

plumptness for years, and with a complexion not indicative of decidedly bad health. Among females, there is often a craving for chalk, pipe clay, magnesia, and similar articles. The teeth are generally disposed to be coated with tartar, and sometimes loosen and fall out without any marks of decay. Feelings called nervous, such as fluttering and palpitation of the heart, and trembling of the hands when agitated, are not uncommon. In this, as well as the other species, nothing is more common than pain, occasional giddiness, and a great variety of strange confused sensations in the head. These are sometimes imputed to fullness of blood in the head; and I have known bleeding, blisters, scarifying and cupping the temples, &c., to be prescribed for months in succession, when the stomach, though little suspected, was alone the seat of the difficulty. Other troublesome symptoms are a sense of heat or burning in the stomach, and an uneasy aching feeling in the back of the neck, sides, and parts adjacent, occasioned by the action of acrid matters upon the nerves of the stomach. The gnawing sensation is owing to the same cause, and is often mistaken for hunger, inducing the dyspeptic to take food when the stomach is not prepared to receive it; which of course, not being well digested, increases the evil. The flow of saliva into the mouth, is occasioned by the glands connected with it sympathising with the stomach. There are some who suffer considerably from acidity, and the fermentation which the food undergoes from lingering too long in the stomach, without being conscious of it, as they seldom bring up any thing by eructation. They complain of flashes of heat in the

stomach and bowels, almost constant flatulence, and desire to belch before and after meals, and a gnawing at the stomach when it is not full. They say they have no want of appetite ; on the contrary, they generally think they have too much, but feel as if they had eaten too much after almost every meal. They can easily be convinced that their unpleasant feelings arise from acid in the stomach, by taking a solution of carbonate of soda, which is immediately decomposed by the acid uniting with the soda, and the disengaged carbonic acid gas rushes up through the nose. On the other hand, those who have most frequent acid eructations, say that every thing turns sour on the stomach. After a dish of coffee, or tea only, in the morning, more than a pint of acid fluid will be spit up, often so pungent as to act upon marble. Indeed, I have been told that a glass of cold water would become sour, and be brought up in ten minutes after drinking it. In this case, the water by uniting with the acid already in the stomach, and bringing it more in contact with the upper orifice, (the most sensible part of the organ,) occasions so much irritation, as to give rise to the effort to bring it up by eructation. Sometimes little or nothing is brought up by eructations ; but the acid produces a great deal of gnawing in the stomach, which is often expressed by the invalid, as a sense of faintness, and attacks of intolerable periodical headach, usually about a certain hour in the day. These headachs not unfrequently pass for what are called nervous, and their real cause is overlooked. Nothing can be more hurtful to a weak stomach, than this peculiar acid which it contains, and it is curious to

mark the regular, though gradual manner in which it increases, as the tone of the organ becomes more and more impaired. First, it is only perceived occasionally after eating certain kinds of food, then frequently after breakfast; at length, almost constantly after every meal, and finally whenever either food or drink is taken. It may with propriety be asked, what is the origin of this acid? the food undergoing fermentation, or the stomach? Undoubtedly both. First, it is admitted by most modern physiologists, that healthy gastric juice contains a notable quantity of free acid, and that the fluids secreted by many weak stomachs, contain this acid in very great excess. That by far the largest part of it does not arise from fermentation, may be satisfactorily proved by a variety of experiments. For instance, if nothing be tasted for a time, but animal food, which does not readily undergo fermentation, say fat bacon, the quantity of acid, instead of decreasing, will be astonishingly increased. On the other hand, it will be perceptibly diminished by subsisting entirely for a few days, on some digestible article from the vegetable kingdom that readily ferments; say for instance, good stale bread. But chemical analysis puts this question at rest. It demonstrates the acid to be one that is not formed by fermentation, and physiologists generally attribute it to some process peculiar to the system of the living animal. With regard to its precise character, some diversity of opinion still exists. Dr. Prout of Great Britain, after a great variety of experiments, has pronounced it to be the muriatic. Chevreul and some other French chemists, have considered it to be the lactic. Some years since

the Parisian Academy offered a prize for the best experimental essay on digestion. Two were presented, the one by Tiedemann and Gmelin, (Germans,) and the other by Leuret and Lassaigne, (French.) Both were thought so meritorious, that they obtained a reward of fifteen hundred francs each. Tiedemann and Gmelin maintain that the acid is muriatic, and Leuret and Lassaigne, that it is lactic. Both agree that when the gastric juice is secreted in consequence of the stimulus of food, the chymous mass is always acid, and the former assert that the acidity is greater in proportion to the indigestibility of the food. Some have supposed the acid to be the phosphoric ; among whom may be mentioned our countryman, the late Dr. Young of Maryland. To enter into an elaborate examination of their several opinions, would be foreign to the objects of this work. It is sufficient for the present purpose, if they go to prove that the stomach may be the principal cause of acidity. When acid exists in any great degree in the stomach, it irritates its nerves, and probably occasions the secretion of an unnatural quantity of the thin mucous, the use of which is to sheath and protect the surface upon which it is poured, and which, either by adding to the quantity of acid, or by diluting the gastric juice too much, and thus rendering it inefficient, undoubtedly increases the difficulty. Secondly, the food from remaining too long in the stomach, whether from weakness of the gastric juice, or a languid contraction of the muscular coat of this organ, in consequence of the combined action of heat and moisture, may ferment, and generate acid which is most probably the acetic, that

being the usual product of fermentation. Whether the acid arises then from one or both of these sources, the fault lies in the stomach, and its contents retaliate upon it, and thus render it weaker and less able to secrete a healthy juice ; so by the unhealthy action of the stomach, and the reaction of its contents, every thing goes on from bad to worse. We have already seen that the stomach generally has but little sensibility ; for this reason, when it is nearly empty, the irritation of the acid only occasions the gnawing feeling, so difficult to be distinguished from hunger. But when food or drink is taken, the acid is applied by it to the upper orifice, and produces the uneasiness heretofore described.

It must not be forgotten that the mere presence of a certain quantity of acid in the stomach, is not of itself sufficient to occasion the distressing symptoms I have enumerated ; for the food always becomes acid to a certain degree during the digestive process, and continues so till it receives the bile : but it is to an undue quantity that they must be attributed, and this undue quantity it is very likely depends upon some peculiar condition of the nerves of the stomach, which it is impossible to explain. This may be fairly inferred from the effects of certain articles, the operation of which is principally upon the nervous system. Thus green tea, coffee, wine, &c. greatly increase the quantity of acid. I have known persons to throw up from half a pint to a pint of acid, sufficiently strong to act readily upon a marble slab after drinking a cup of coffee in the morning without any food ; and I have known a considerable quantity to be brought off the

stomach in the morning after having taken two or three glasses of wine just before going to bed. I have often suffered exceedingly from acidity in the evening, after a dish of strong green tea. Another article that invariably has this effect, is the empyreumatic oil produced by frying meat. Thus the same meat, as ham, if fried will occasion intolerable acidity, when it sits tolerably well on the stomach if boiled.

After a time the stomach acquires an unnatural degree of sensibility or irritability, and suffers more from the action of the acid, or from the presence of improper food. In proportion as this increases, the gastric juice becomes more and more unhealthy and inefficient. At length the function of the liver may become deranged, particularly if no attention be paid to diet, giving rise to a long train of distressing symptoms, and very soon disordering the bowels, if they have not suffered already. The stomach, instead of being relieved, is still further weakened by the disturbance in the functions of the liver and bowels, and thus link after link, the whole chain of digestive organs may be involved in diseased action, which has commenced in a single one. The season of the year has apparently but little effect upon this species, as it is nearly the same in winter and summer, nor is it influenced by the quantity of exercise the invalid takes, so much as the other species, for it does not entirely subside during a long journey, as they commonly do. But the digestible or indigestible nature of the food produces the most evident effects. Thus a perfectly ripe mellow peach, which is easily digested, will occasion no marked increase of acidity, while a

hard unripe one, which cannot be sufficiently dissolved to ferment, but passes through the bowels entirely unchanged, will occasion a great abundance. This is another evidence that the acid principally comes from the stomach.

Second Species.

We have seen that the first species, in its early stages at least, is principally confined to the stomach, and most of its symptoms occasioned by acidity. In the second species the leading features are more or less connected with derangement of the biliary function and imperfect digestion. The invalid labouring under this form is commonly worst in the spring of the year; suffers from occasional attacks, termed bilious, during the summer, and experiences some amelioration of his complaints as the cold weather sets in and during the winter. Sometimes for a few days he enjoys tolerable health, and again, without any apparent cause, may be too ill to leave his bed. Sometimes he is able to attend to business, and at others is incapacitated for making the least exertion. Thus he is constantly fluctuating from one point of the scale to the other, but rarely feels perfectly well.

When he first rises in the morning he is languid and listless, with more or less pain in the head, a bitter disagreeable taste in the mouth, and the tongue covered with a yellowish fur, particularly towards the root. He frequently complains of loss of taste; has but little appetite for food, and is oppressed and uncomfortable after his meals. After eating hearty food

he often feels as if he had swallowed some hard angular substance ; his forehead is hot and something painful ; he has throbbing of the temples, back of the neck, pit of the stomach, and is more inclined to lounge about than to make any exertion of body or mind.

Though heavy and inclined to sleep during the day, his nights are usually restless ; his sleep is disturbed by frightful dreams, or occasional visitations of the nightmare, and he awakes feverish and thirsty. Now and then he has attacks of giddiness, often followed by slight faintness or sickness at the stomach. He has vague pains and sense of weariness in all his limbs, almost constant aching in the back and loins, and sometimes a soreness or sort of lameness in the motions of the eye. Pains are often felt at the tip of the shoulder, between the shoulders, in one or both sides, increased by a deep inspiration, and in the back of the neck. Sometimes there is tenderness or a burning sensation at the pit of the stomach, or in the right or left side ; numbness of the right side and arm, and inability of lying on that side. The skin in the worst cases is not soft and perspirable, but has a hot greasy feel, particularly upon the forehead. The complexion is of a dingy sallow hue, and the eyes, which almost always have a very heavy expression, are occasionally of a yellow tinge.

The bowels are seldom regular, generally torpid and confined, though sometimes relaxed for a day or two, when the evacuations are exceedingly bilious. The urine is high-coloured and deposits a reddish sediment upon the bottom of the vessel. There is often great loss of flesh and strength. Indeed, it is remarkable

that very considerable derangement of the stomach alone may exist for a long time without any thing like excessive emaciation; but when the biliary system suffers, the loss of flesh and strength is often astonishingly great. In addition to the real weakness of the invalid, occasionally a feeling of entire prostration of his muscular powers comes over him, and then the least motion is with reluctance: to ascend a staircase, walk across the room, or even stretch out his arm to help himself to the smallest thing, seems impossible, when perhaps in a few hours he is able to walk a mile without great fatigue.

The temper becomes irritable and impatient, even in those naturally the most amiable, and there is a marked aversion to society, most kinds of conversation, and every thing gay or cheerful. But the symptom above all others the most truly distressing, is a depression of spirits which no fortitude can resist, no philosophy bear up under. Even when the invalid perfectly understands its cause and the nature of his complaint, and is entirely convinced that nothing alarming need be apprehended, there is a gloomy boding of danger that irresistibly weighs him down to the earth. He feels best after several hours fasting, and fancies he would be quite well if he could live without eating; but all his bad feelings are revived by the next meal, and he is driven almost to despair by the melancholy idea that the nourishment nature requires is, when taken, the cause of all his sufferings.

As I have already intimated, there is not unfrequently a combination of many of the symptoms of this and the first species, though generally those of

one or the other predominate. To describe all the varieties which present themselves would be little less than giving a history of every separate case. Hardly any two are precisely alike, and there is no end to the sympathetic affections of different parts of the body; and the thousands of strange and to the invalid unaccountable feelings which he will at times experience. Hundreds have more or less of the above symptoms without labouring under the aggravated form of the disease I have described, and the endless shades of difference in the severity of different cases may be noticed from the occasional feeling of heaviness or load at the stomach within twenty-four or eight and forty hours after eating certain kinds of food, without any very obvious fault in the digestive process, (and which, by the by, should be a hint to those who are subject to such visitations), to the most melancholy stage of the complaint, entire prostration of strength, excessive emaciation, inability to digest without uneasiness, even the lightest solid food, and a mind borne down by a horrid load of gloomy bodings, but little preferable to madness. In addition to a weak state of the stomach, many of the phenomena exhibited in this species, depend upon derangement of the biliary function, as those of the first do upon acidity. We have noticed in the Introduction, the important part performed by the bile in completing the transformation of food to chyle, and it will at once be conceived that a deficiency of this fluid, or any deviation from a healthy state, must materially affect the digestive process. In some cases a large quantity of unhealthy bile is accumulated in the gall bladder and biliary

tubes, of course is not regularly mixed with the dissolved food ; in others it probably so far loses its natural character as to be incapable, after it reaches the duodenum, of mixing with it, and is accumulated in the bowels, till by its irritation and regurgitating into the stomach a fit of sickness and vomiting is occasioned, when it is thrown up in great quantities, often as thick as jelly ; or a diarrhœa is brought on, and it is discharged by the bowels. When it is not regularly poured into the duodenum, its thin parts are absorbed and carried into the circulation, giving to the complexion the sallow tinge ; and the thick tenacious parts remaining, are entirely unfit for the purposes for which the bile is intended. It is sometimes so acrid as to blister the skin when applied to it, and then undoubtedly produces a great variety of painful and distressing sensations, as pain in the head, uneasiness and pain in the sides, pit of the stomach, shoulders, &c. If from any cause whatsoever it is prevented from uniting in suitable quantity with the chyme, healthy chyle is not formed, and the system being thus deprived of its proper nourishment, great loss of flesh and strength speedily follow. The confined state of the bowels may be attributed to the same cause. The depression of spirits, feeling of weariness in all the limbs, soreness in the motions of the eyes, pain in the back, and a vast number of other uneasy sensations, are owing to the effects of morbid bile upon the nervous system, as well as the flashes of heat, throbbing of different parts of the body, restless nights, &c. Now and then the irritation is so great as to excite fever, thirst, furred tongue, violent pain in

the head or side, and a great variety of other symptoms. All these things impair the solvent powers of the stomach; what is taken into it is not properly changed into chyme, and from the defect in the bile lingers too long in the bowels, is more or less subject to chemical changes, and thus becomes another source of irritation. If the invalid now takes an active cathartic, which commonly dislodges an immense quantity of offending matters, he is perfectly relieved for a time. His natural cheerfulness returns; his appetite improves, and his fondness for exercise and amusement revives. But this period of exemption from his complaints, particularly if he pays no attention to diet, is very brief—accumulations gradually take place in the bowels, and with them all his ailments are again renewed.

Third Species.

The third species depends upon a morbid sensibility or irritability of the inner surface of the stomach and bowels, with more or less derangement of the functions of the liver. It appears under the following forms,—1st, with marked indigestion, or painful digestion, and 2d, with obscure symptoms of indigestion, or without any very obvious signs of it. When there is marked indigestion, more or less uneasiness, often amounting to pain, is experienced in the stomach after eating many kinds of solid food. High seasoned articles, wine or spirits, indeed every thing of a stimulating nature, occasion more or less distress in the stomach, and in almost every case a rending pain in the head.

The stomach is so morbidly sensible, that any solid substance, such as a crust of bread, a bit of hard apple, even a hard pill is felt for a long time after it is swallowed. I have known the most exquisite suffering produced by the seed of an orange, swallowed by accident. In the worst cases of this form, the secretion of gastric juice seems to be almost entirely suspended, as nothing but the mildest fluids can be digested. When solid food is taken, it is distinctly felt in the stomach, the head begins to ache, and soon becomes distracting, the temples throb, the heart palpitates, and the whole nervous system seems agitated and disturbed. At length, the headach becomes so intolerable as sometimes to occasion fits of fainting and insensibility, till at last nausea and vomiting take place, and the food is thrown up as undigested as at the moment it was swallowed. I have known a small quantity of fresh fish to give rise to a paroxysm of this sort, and be brought up after many hours of the most dreadful torture, as entire as when eaten ; a little wine, a bit of apple, a pill, even beef tea, had the same effect.— When it arrives at this stage, the head is seldom if ever, free from pain ; solid food is rejected without the least acidity or change of taste or appearance, after remaining for hours in the stomach, the bowels are torpid, the strength and flesh waste rapidly, the complexion is dingy, the nights are sleepless from burning of the hands and feet, or pains in various parts, or passed between unrefreshing dozing, and the most frightful dreams, and the days are embittered by unceasing pains. The function of the liver is generally very much deranged, occasioning pains in the

side, an occasional slight hacking cough, pain, and sense of great weariness of the back, loins, and limbs, aversion to exercise, listlessness, gloominess of mind, and dejection. The most trifling thing frightens and agitates, the heart beats violently against the ribs, the hands tremble, hearing and vision become painfully acute, and ascending a few steps excites fluttering and breathlessness. The pulse is quick, sometimes soft and sometimes wiry. There is little or no appetite, occasional thirst, tongue coated in the middle, and red at the edges. The bowels are often so irritable, that the smallest quantity of cathartic medicines, as a teaspoon-full of Epsom salts, acts most violently upon them, and occasions great pain and uneasiness. From a dread of which, the invalid omits taking them as long as possible, and allows the bowels ~~to remain confined, by which the bile and other secretions~~ are accumulated, enter into new chemical combinations, and thus become a new cause of irritation. To these symptoms may be added a vast number of others called nervous, differing in degree and kind in almost every individual. In the 2d form, (by far the most melancholy of all the derangements of the digestive organs,) there may, or may not be symptoms of indigestion. It is known by the names of low spirits, blue devils, hypochondriasis, melancholy, &c., and exhibits a vast variety of varying shades, from the transient fit of despondency, to a state of mind the most exquisitely dreadful, differing but little from real madness. In the first species, we have seen the stomach engrossing the principal attention, in the second, the liver, and again in the form of this species just

described, the stomach is referred to as the seat of the complaint; but in this the wretched sufferer is often at a loss where to fix his disease. In the sequel I think it will be evident that the inner surface of the bowels having become morbidly irritable, is the real seat of the disease, and that it occasions through the medium of nervous sympathy, a great variety of affections of different parts of the body, as the brain, lungs, heart, urinary organs, limbs, &c., or vents its whole force on the mind. The persons most subject to this form, are generally past the meridian of life, who have been actively engaged in business calculated to produce anxiety or requiring constant exercise of the mind. Those who have made fortunes in warm climates, and have returned to the north to spend the evening of their days, are peculiarly obnoxious to it. In some cases there are flatulences, eructations, feeling of distention and weight at the stomach after eating, irregular bowels, &c. In these, the invalid is convinced his digestion is bad. In others, none of these symptoms are present, or if so, in a trifling degree, and are entirely unnoticed. Sometimes they do exist to a certain extent, but are overlooked in anxiously attending to the sympathetic affection of some other part.— Sometimes the head is affected with giddiness, and great confusion of ideas, ringing of the ears, and indistinct vision. Sometimes the action of the heart becomes exceedingly irregular, throbbing and beating violently against the side, now and then intermitting, and occasioning great distress, and an irregular and intermitting pulse. Sometimes there is severe smarting and pain in voiding the urine, which is often scanty,

turbid, and high coloured, and cannot be retained but for a few minutes at a time, or abundant and perfectly colourless ; but to attempt to enumerate all the strange affections that appear in this form, would be to give a history not only of most of the complaints called nervous, but of one half the diseases that affect the human frame, for Proteus like, it imitates a very large proportion of them. But there is one symptom that is never wanting, and that is the most dreadful mental dejection, and disposition to magnify every unpleasant feeling, to look upon the above mentioned affections as incurable and fatal diseases, and a constant apprehension of some overwhelming calamity. Every feeling is most carefully and anxiously noticed and greatly exaggerated by the morbid sensitiveness of the mind. If there are dizziness and ringing of the ears, the invalid is sure he is threatened with apoplexy or palsy. If he coughs, he dreads a rapid consumption, his heart palpitates, and he feels his pulse and finds it intermitting, and is convinced he has disease of the heart, which will speedily destroy him. If his urine is scanty and high coloured, and he has smarting and pain in voiding it, he fancies he has gravel or stone, or if it is abundant and limpid, he is certain of diabetes. To add to his torments, his friends, who little suspect the hundredth part he suffers, because they see nothing which to them is indicative of disease, laugh at his complaints, or attempt to convince him that he is in fact in tolerable health. But as well might they have convinced the wretched Mexican, writhing upon the heated gridiron, that he was reposing upon a bed of down. His complaints are not imaginary, he feels that they

are but too real, and this inhumanity in those who should endeavour to alleviate his sufferings, increases the gloom that broods over his spirits, and greatly aggravates every symptom. "Their complaints," says Dr. Johnson, "are considered imaginary, and pass unpitied ; and the unhappy victim of a real physical malady which preys on his vitals, is thus set down as a hypochondriac, and so bantered and ridiculed by his friends, that the world is to him a purgatory from which he has little regret in parting."

There is good reason to believe that very many, driven to desperation by the cruel derision even of their nearest connections, and the mental anguish of a disease that must be felt to be imagined, in some of those horrid paroxysms, look to death alone for relief, and give way to the awful temptation of self-destruction. This should be a lesson to the friends of the hypochondriac and dyspeptic invalid. When from business or other circumstances he is forced to quit the fire-side and take constant and continued exercise in the open air, or perform a journey of considerable length, he will often seem for a time to forget his ailments. He becomes cheerful and contented, enjoys the society of his family and friends, or participates in all the amusements and pleasures of social life. But after a very brief period of ease, and indulgence in the luxuries of the table—mark the change. At first perhaps his taste becomes faulty, or he has some slight uncomfortable sensations in the stomach or bowels ; then confusion of mind or intermission of the pulse, and finally, in rapid succession, all his former horrible feelings and accumulated maladies. Now the cause of all this is an unhealthy

condition of the bile and other secretions poured into the bowels and a high degree of irritability or morbid sensibility of their inner coats. But how can this be? Perhaps nothing materially wrong is felt in the bowels and all the complaints are in the most distant parts of the body. Do we always feel uneasiness in the stomach when its derangement occasions headach? or does the child feel any thing wrong in the bowels when worms occasion convulsions? Who has not passed a restless uncomfortable night after eating too freely of nuts, cheese, and many other indigestible substances, without feeling any thing wrong in the real seat of the irritation? The fact is, the connection between the digestive organs and brain is one of the most curious in nature. They are not subject to the will, and yet they are influenced by the emotions of the mind.

Who has not suddenly lost an excellent appetite on hearing some very unpleasant or painful news? This fact did not escape the notice of the prince of English poets, for he makes Harry VIII. say to Wolsey on giving him the papers, "Read o'er this—and after, this—and then to breakfast with what appetite yóu have."

As has been before stated, when in perfect health we satisfy our appetite with a reasonable quantity of plain food, we feel nothing of it after it has been swallowed. But during digestion we feel a peculiar pleasurable sensation diffused over the whole system, without being able to refer it in particular to the digestive organs. The mind is cheerful and contented, and the body is refreshed and invigorated. So the same organs in a deranged state are capable of diffusing

through the whole system the most unpleasant sensations, and exercising the most powerful influence over the passions and emotions of the mind without our being at all conscious of the real cause. This should lead persons who are subject to occasional depression of spirits, or fits of irascibility and ill-humour, to suspect some fault in their digestion, and nineteen times in twenty the suspicion will be well grounded.

Almost every part of the body may sympathise with the digestive organs. Thus certain persons feel at times a stiffness and pain in the motions of the eye ; but they do not infer from it that there is disease of that organ. Experience has taught them that they feel it when they are bilious, and that it vanishes after taking a cathartic. This then is a single instance of what is termed sympathy. In like manner, there may be pain, heat, and confusion of head, pains in the chest and cough, palpitations of the heart, intermissions of the pulse, difficulty in voiding urine, painful sensations in the limbs, and in fact in every part of the body, and all from sympathy with the alimentary canal.

It has already been stated, that the bile is sometimes so acrid as to blister the skin when applied to it. From this fact some idea may be formed of its effects upon the delicate lining of the bowels ; for though they are embued with mucus to sheath and protect them, the constant presence of this acrid bile irritates them more or less, the effect of which will be a secretion of a thin mucus, not as well calculated to do its office, and at last the inner surface of the intestines must become exquisitely tender and sensible, and yet this highly offending matter very often passes through the bowels

without producing any pain in them, though the brain or some other organ is made to suffer that torture which we cannot feel in its true seat, unless it excites those severe spasms called colic, when the muscular coat is affected, which is endowed with a different kind of sensibility. As has been explained, it is the inner coat that has no distinct feeling : indeed it has been often cut and torn when in a healthy state, in experiments on living animals, without apparently giving them pain. But when a diarrhœa is occasioned by the accumulated bile, which is then discharged in great quantities, it often gives rise to intolerable smarting and pain at the extremity of the bowels and wherever it touches the skin. Persons afflicted with the piles suffer excruciating torture from these discharges. If for a time the invalid lives on very simple light food, and keeps his bowels open with some gentle medicine, the biliary and other secretions will be improved and his complaints alleviated. But let him indulge freely again in rich high-seasoned dishes and wine, and all his old maladies will return upon him with unabated violence, and after almost driving him distracted, will perhaps end for a time with a copious discharge of thick tenacious unhealthy bile, which acts upon him like poison. A paroxysm of this sort is described by Dr. Johnson, in his work on morbid sensibility of the stomach and bowels, with such graphic excellence and vividness of colouring, that I cannot deny myself the pleasure of transcribing it.

“ It is this tenacious ropy bile which hangs so long in the bowels of some people, and by keeping up a constant irritation of the intestinal nerves, produces a

host of uneasy sensations in various parts of the body, as well as fits of irritability in the mind. In some cases where this poisonous secretion lurks long in the upper bowels, whose nerves are so numerous and sympathies so extensive, there is induced a state of mental despondency and perturbation which it is impossible to describe, and which no one can form a just idea of but he who has felt it in person. The term 'Blue Devils,' is not half expressive enough of this state, and if my excellent friend, Dr. Marshall Hall, meant to describe it under the head '*mimosis inquieta*,' he never experienced it in propria persona. This poison acts in different ways in different individuals. In some whose nervous systems are not very susceptible, it produces a violent fit of what is called bilious colic, with excruciating pains and spasms in the stomach and bowels, generally with vomiting or purging, and often succeeded by a yellow suffusion in the eyes, or even on the skin. Severe as this paroxysm is, the patient may thank his stars that the poison vented its fury on the body instead of the mind. When the intellectual faculties have been much harassed and the nervous system weakened, the morbid secretion acts in that direction, and little or no inconvenience is felt in the real seat of the enemy. The mind becomes suddenly overcast as it were with a cloud; some dreadful imaginary evil seems impending, or some real evil of trifling importance in itself, is quickly magnified into a terrific form, attended apparently with a train of disastrous consequences from which the mental eye turns in dismay. The sufferer cannot keep in one position, but paces the room in agitation, giving vent to

his fears in doleful soliloquies, or pouring forth his apprehensions in the ears of his friends. If he is from home when this fit comes on, he hastens back, but soon sets out again in the vain hope of running from his own wretched feelings. If he happens to labour under any chronic complaint at the time, it is immediately converted into an incurable disease, and the distresses of a ruined and orphaned family rush upon his mind and heighten his agonies. He feels his pulse and finds it intermitting ; disease of the heart is threatened and the doctor is summoned. If he ventures to go to bed and falls into a slumber, he awakes in the midst of a frightful dream, and dares not again lay his head on the pillow. This state of misery may continue for twenty-four, thirty-six, or forty-eight hours, when a discharge of viscid acrid bile in a motion of horrible feter, dissolves at once the spell by which the strongest mind may be bowed down to the earth for a time through the agency of a poisonous secretion on the intestinal nerves. I believe such a train of symptoms seldom obtains, except where there has been a predisposition to morbid sensibility occasioned by mental anxiety, vicissitudes of fortune, disappointments in business, failure of speculations, domestic afflictions, or some of those thousand moral ills which render both body and mind so susceptible of disorder. It is under the influence of such paroxysms as these, I am thoroughly convinced, that nine-tenths of those melancholy instances of suicide which shock the ears of the public take place. Nothing is more common than to hear of these catastrophes when no ostensible cause could be assigned for the dreadful act. There might

be no real moral cause, but there was a real physical cause for the momentary hallucination of the judgment in the irritation of the organ of the mind, through sympathy with the organs of digestion. Such is the intimacy of connexion and reciprocity of dependence between the intellectual and corporeal functions."

The peculiar appearance which the discharges procured by cathartics often exhibit, has been noticed by several eminent writers. They are like a tenacious ropy jelly, compared by some to birdlime, and adhere so closely to the bottom of the vessel as to be removed with difficulty by water alone. An individual whose evacuations I have repeatedly seen of this description, had suffered for years from a combination of the most distressing symptoms. The loins and urinary passages were the seat of constant severe pain, though there were never any indications of stone. The urine was in small quantity, turbid, and red, and could not be retained but for a few moments at a time, and gave excruciating agony in passing it. The whole attention of the invalid was directed to these organs, which were considered to be the seat of some fatal disease.

During the worst paroxysms nothing was heard but the exclamations, I must die ! I must die ! It is impossible to live in this condition. No one can conceive what I suffer, &c., and I regret to say, that these sufferings were occasionally aggravated by uncharitable friends, who believed them in a great measure imaginary. The appetite though variable, was not decidedly bad, and no inconvenience was felt apparently from light food ; but certain articles were evidently

hurtful. The mind was in no way affected, except with the conviction that death was inevitable ; and the strength continued so little impaired as to render constant confinement to bed unnecessary. The bowels were never moved, except by cathartics, which were taken at intervals of a few days, and though their operation gave great pain, they relieved all the other symptoms when they procured the evacuations above described. Yet this person, after years spent in this way, enjoyed very good health, attained to a great age, and died at last of a local disease no way connected with the former complaints, proving that the urinary organs had been the seat of sympathetic derangement only.

From the foregoing description it will be seen, that many of the symptoms of this species, particularly those which mark the deranged state of the liver, are common to the second. Indeed, there is no distinguishing between the worst cases of the second and the milder cases of the third ; for the former may undoubtedly pass into the latter, and the morbidly sensible and irritable state of the lining membrane of the stomach and bowels, which is the principal characteristic of this species, be occasioned by the irritation of imperfectly digested food and vitiated bile. It must be remembered, that the division I have made into three species, is principally for convenience and the sake of distinction, as the majority of cases may be easily arranged under each of these heads, though all most certainly cannot.

Causes.

Whatever has a tendency to weaken any one or all of the digestive organs, either by acting directly upon them, or indirectly through the medium of other organs, or by weakening the system generally, may be considered as a cause of the foregoing disorders.

It will at once be conceived, that the causes must be extremely numerous; as the great inlet of nourishment for the body, the digestive organs, are liable to have their natural action disturbed by the quality and quantity of the prodigious variety of substances received into them. From their sympathy with every part of the body, they participate in all its diseases, and from their curious connexion with the reasoning faculties, they suffer in all the immoderate emotions of the mind. When we think how astonishingly all these are multiplied by civilization and refinement, and recollect the proneness to particular diseases which we inherit from our parents—(for unhealthy parents may transmit to a numerous progeny, if not their maladies, at least the peculiarity of constitution which rendered them liable to them)—it is more surprising that the digestive process is so regularly performed in the great mass of individuals, than that indigestion and its gloomy train should be so often met with as it is.

The natural power or tone of the stomach will scarcely be found the same in any two persons, but varies as much as the physical power of the body. Thus we find that of two men of equal size, one can raise a weight of 600 pounds, the other of only 300; the stomach of one will dissolve almost any substance

he chooses to swallow, the other dissolves with difficulty many of the ordinary articles of food. We see the physical strength of some men greatly increased by constant exercise; so the stomach may be educated, if I may so speak, to perform many of the astonishing operations of that of the ostrich.

And here let me remind parents that this should be a useful hint respecting the manner of bringing up their children; for taken in season, the human constitution admits of being moulded and fashioned by a skilful hand to a degree almost incredible. Thus the delicate and puny by suitable diet, air, and exercise, may be often rendered healthy and even robust, while the hardy offspring of the rugged labourer, by being fed on dainties and confined to a bad atmosphere, will be feeble and infirm. Those who have naturally weak stomachs may, by prudence and care, enjoy a tolerable measure of health, while those who have the strongest may be at last completely broken down by irregularity and excess, and if we now and then see persons apparently unaffected by a long course of every species of intemperance and dissipation, it only shows how long nature will allow herself to be outraged in some cases, without visiting the offender with speedy vengeance, and is a strong proof that had they consulted reason and moderation, they might in all probability have attained a great age in the rational enjoyment of all the comforts and allowable pleasures of life, and almost bid defiance to disease. To enumerate all the causes of derangement of the digestive organs is quite unnecessary; but I shall examine some of the most common under the heads of Physical and Moral Causes.

Physical Causes.

Undoubtedly the most common of all the causes of derangement of the digestive organs, is eating too much. Few are contented with the small quantity of simple nourishment which nature actually requires, but almost all indulge, more or less, in the pleasures of the table ; and not unfrequently yield to the strong incentives of variety, high seasoning, stimulating drinks, &c. to prolong them to an immoderate extent. Those who will take the trouble of reading the early life of that distinguished philosopher, Dr. Franklin, may convince themselves, without going back to the diet of the Spartans, how very little plain food is sufficient to maintain the human body at the maximum of strength and activity. We may eat too much, either by indulging at a single repast or by eating too often. When from the variety of dishes calculated to please the taste—the relish imparted by the presence of friends—the stimulus of generous wine, and the different heating condiments, we give up our reason for the gratification of the palate, and eat and drink beyond a certain point ; the face becomes flushed—the pulse beats full and hard—the spirits are elevated—and we are disposed to be pleased with those around us, and indulge in what we term relaxation from business and care. But the pleasures of conviviality are short-lived. In a few hours, when the fumes of the wine and other stimulants have vanished a little, we become sensible that we have violated the plainest law of nature, and loaded the stomach with more food than it can conveniently contain. Our clothes feel too tight, and we

have an uncomfortable sense of fullness and distention. The heterogeneous mass in the stomach swells, from being subjected to an elevated temperature and the rarefaction and expansion of the fluids with which it is mixed. From the chemical changes which now take place, gas is disengaged in considerable quantities, and gives rise to eructations. Heaviness and drowsiness succeed to the exhilaration of spirits, and the night is either spent in tossing from side to side, with thirst, fever, pain of the head, and throbbing of the temples ; or in unrefreshing sleep accompanied by snoring, and interrupted by frightful dreams and attacks of night-mare. In the morning the head is painful and hot—the tongue is furred—there is a disagreeable taste in the mouth, and a feeling of languor and listlessness that should teach us the criminal impropriety of immoderate indulgence. The urine is high coloured—there are uneasy sensations in the bowels, and diarrhœa is often produced by the acid—half digested matters which have passed from the stomach into the bowels, exciting the liver to pour out an unusual quantity of bile, and constantly fermenting and forming new and irritating combinations. But it is quite as common an occurrence for people to take too much food by eating too often, and those who do so are not unfrequently unconscious of it, though they feel that all is not right within them. We often hear them wondering what can be the cause of their unpleasant sensations, when they would blush even at the thought of gluttony. When the stomach is over distended at a single meal, it is neither capable of duly contracting upon the mass, or of supplying the quantity of gastric

juice required to dissolve it entirely, of course a part must ferment. But when one meal follows too soon upon another, before the first has been acted on and made room for the second, the regular digestive process must be more or less disturbed. Gastric juice is required before the stomach has recovered from the fatigue, if I may so speak, of disposing of the first meal, and the juice supplied will be weak and illy prepared to do its office with promptness. Consequently the second meal will not be properly digested, but give rise to exactly the same results as eating too much at once. This may be inferred from the following circumstances: a too quick succession of meals has a tendency to excite the appetite by the sight of palatable food when nourishment is not actually required; in the same way that the several courses at dinner will have a similar effect. A man could rise from table after the ordinary quantity of soup and fish, "not only satisfied, but saturated;" and yet by a succession of different dishes his appetite may be repeatedly roused to demand more.

"Thus then," says Dr. Paris, "it is, that the stomach is made to receive not one full meal, but a succession of meals rapidly following each other and vying in their miscellaneous and pernicious nature with the ingredients of Macbeth's caldron."

Again, we may reasonably conclude, that if the digestive process may be disturbed and a healthy chymification of the food prevented in a weak stomach by eating too often, a too rapid succession of meals may have more or less of the same effect in a strong one. Dr. Philip says, "The dyspeptic should eat nothing in

the intervals of these meals. There is no greater mistake than that he should be constantly taking something. This disturbs the natural process and entirely prevents the recurrence of appetite, a certain degree of which is a wholesome stimulant to the stomach. The stomach by this constant eating, becoming more and more debilitated." Dr. Paris says, "the anxiety of friends, and the popular errors which exist upon the subject of diet, are apt to establish the mischievous belief that "a little and often" will be more likely to restore the languid stomach to its healthy tone, than moderate meals at more protracted intervals;" and again, he says, "the natural process of digestion is thus disturbed, and the healthy action of the stomach as evinced by the return of moderate appetite, is entirely prevented." It should be recollected that by appetite in both these quotations, is meant the actual demand of the system for nourishment, and not the desire excited by a savory dish; for this last will sometimes exist when the stomach can literally hold no more.

In most persons, some little time is required after one meal has been digested for the stomach to resume its tone, which is indicated by the renewed desire for food; amounting to hunger if the fast is sufficiently long; but in children, whose systems require a greater quantity of nourishment than adults, and in a few who have arrived at maturity, this does not appear to be the case; as they can eat almost constantly: at all events, the energy of the stomach is so great, that it seems to need no intermission of action, but is ready

for a fresh supply the moment it is empty, and even if not, will readily master all that is sent to it.

Those who take much exercise require more food to supply the waste of the system, than those who do not; but if an active life is changed for one of ease, and the same habits of eating and drinking continued, indigestion is almost invariably the consequence.

Persons in easy circumstances, are often so unconscious of the quantity they eat and drink, that if they were to throw into a vessel as much of every thing as they take themselves, the collection at the end of twenty-four hours, would astonish them. An anecdote which was related to me by a gentleman who had been a pupil of the celebrated Dr. Gregory, has considerable bearing on this subject.*

A wealthy manufacturer from the west of Scotland, while at Edinburgh on business, called on Dr. G. for his advice. He was a man of middle stature, rather corpulent, with a rosy complexion, and whose exterior altogether bespoke the comfortable liver. After seating himself, the following dialogue ensued.

Gentleman. Well, Dr. Gregory, I ha' come up to Edinbro' i' the way o' business, and I just thought I would take your advice about my health.

Doctor. Your health, sir? what is the matter of you?

Gent. I'm no just sae weel i' the stomach as I'd like to be.

Dr. The stomach! I suppose you are a drunkard or a glutton then, sir.

* I give this entirely from memory.

Gent. Na, na, Dr. Gregory, ye canna say that—ye canna say that—ye maun ken that I'm a sober man, and a temperate man, and a deacon o' the kirk as my worthy father was afore me.

Dr. Well, let us see, what do you eat and drink? What do you take for your breakfast?

Gent. I take coffee or tea wi' toast, and a fresh egg or a bit o' salmon; though I ha' no much appetite for my breakfast.

Dr. Yes: and then you take something by way of lunch, between breakfast and dinner?

Gent. I canna say I care ower much about the lunch, but I can take a bit o' bread and cheese wi' a glass o' ale, if it be there; but I canna say I care ower much about it.

Dr. Well, what do you eat for dinner?

Gent. Oh! I'm no very particular, though I maun say I like my dinner.

Dr. I suppose you take soup first?

Gent. Yes: I can say I like my soup.

Dr. And a glass of porter, or brandy and water with it?

Gent. Yes: I like a glass o' something wi' my soup.

Dr. And then you have fish, or beef, or mutton, with vegetables?

Gent. Yes.

Dr. And a glass of ale or porter with them?

Gent. Yes: I take a glass o' ale now and then wi' my meat.

Dr. And then you have boiled fowl and bacon, or something of that sort, I suppose?

Gent. Yes : I maun say I like a bit o' fowl and bacon now and then.

Dr. And a glass of something with them ?

Gent. Yes.

Dr. And after the fowl you have pudding ?

Gent. I'm no sa' fond o' the pudding, but I can take a bit o't if it be there.

Dr. And you must drink wine with your pudding ?

Gent. I canna take ower much o' the wine, but if I ha' a friend wi' me, I maun take a glass or so.

Dr. And then you have cheese or nuts ?

Gent. Yes : the gude wife is ower fond o' them, but I canna say I care much about them.

Dr. But you take a glass or two of wine with your nuts ?

Gent. Yes : a glass or two.

Dr. Well, you do not finish your dinner without whiskey-punch ?

Gent. I find my dinner sits better on my stomach with a little punch, so I take a glass or so.

Dr. And you have tea I suppose ?

Gent. Yes : I maun take my tea with the gude wife.

Dr. And a bit of something with it ?

Gent. Yes : I can take a bit o' something if it be there.

Dr. But you do not go to bed without supper ?

Gent. Na, na, Dr. Gregory, I canna say I like to gang to bed without my wee bit supper.

Dr. And what do you eat for supper ?

Gent. Oh! a bit o' ony little thing—a bit o' salmon or boiled tongue, or cold fowl.

Dr. And a glass of something with it?

Gent. Yes.

Dr. And can you go to bed without a night cap of hot punch?

Gent. I maun say I sleep the better for a glass o' hot whiskey punch—though I canna say I'm ower fond o' the habit.

Dr. Well sir, you are a fine fellow; you are indeed a fine fellow: you come to me with a lie in your mouth, and tell me you are a sober man, and a temperate man, and a deacon of the kirk as your worthy father was before you: and you make yourself out by your own statement, to be a *glutton*, and a *wine bibber*, and a *whiskey tippler*, and a *beer swiller*, and a drinker of that most abominable of all compositions called *punch*. Go home, sir, and reform yourself, and become temperate in your eating and drinking, and you will have no need of my advice.

It has been stated, that indigestion is exceedingly prevalent in this country. Considerable observation induces me to believe that it is far more so than in any other, not even excepting England; where it probably exists to a greater extent than in any other part of Europe; and where it is strongly suspected by some, of being extensively propagated by the vast numbers who return dyspeptic from tropical countries, and entail to their offspring a predisposition to it. One reason why I believe it to be more common here than in England, is, that it may be said to be confined to the classes in easy circumstances among the English;

while the labouring classes, particularly the agricultural, are comparatively exempt from it, though it exists among them from intemperate drinking. With us, it is not only as prevalent among those in easy circumstances as in England, and I have no doubt much more so—but is met with at every step, (especially among the females) even in the humblest walks of life. This undoubtedly arises from the fact, that owing to the very great cheapness of all kinds of food, the poor feed sumptuously in America when compared to those of England; and the females, instead of assisting their husbands in the field, and engaging in a great variety of occupations in the open air, so common in England, confine themselves almost entirely to the house, and are consequently much less strong and healthy.

This great prevalence of indigestion among us, may be attributed to a variety of causes, some of which are peculiar to us as a people. In the first place, our climate is much less favourable to strong stomachs than that of England. During the summer we are exposed to a much higher, and during the winter to a much lower temperature than the English. The transition from one extreme to the other has such an evident effect upon the constitution, as to be noticed by the most unobserving. In the spring, the tone of the digestive organs is perceptibly diminished by the approaches of hot weather, as marked by a disrelish for animal food; and the great susceptibility to those derangements termed foul stomach, bilious attacks, jaundice, &c. With the continuance of hot weather, the tone of these organs is not only diminished, but

they acquire a high degree of irritability, hence the prevalence of cholera morbus, dysentery, and diarrhœa. Of these three diseases, less than one hundred cases are reported in the bills of mortality for London, containing between a million and a million and a half of inhabitants, in ten years ending in 1824. While in New-York, with a population of about two hundred thousand, two thousand cases are reported in ten years ending in 1829.

As the cold weather returns, the appetite for animal food increases, and the winter removes, in a great measure, the irritability and weakness of the digestive organs. It must be evident, that if aside from climate we are exposed to the same causes of dyspepsia as the English, the effects of our climate must give greater force to those causes, and throw the odds fearfully against us in escaping their operation. It may be asked if our summers are so debilitating to the digestive organs, why are not the inhabitants of the South of France, Italy, Spain, &c. as liable to dyspepsia as we are? I answer, our cold winters and the far greater quantity of animal food we then consume, place our constitutions upon the scale of the inhabitants of northern climates, and we suffer to a certain extent by the transition from winter to summer as they do by a removal to the tropics. The difference is, they soon become acclimated, as it is termed, while we are constantly passing from one extreme to the other.

It may be said that the climate of England is altogether more variable than our own. I admit it: nothing is more common than to have all the varieties of weather that characterise the four seasons, within the

twenty-four hours ; but what is all this when compared to the astonishing number of degrees through which the mercury ranges in America, from the coldest day in winter to the hottest day in summer? In many places in the northern states, the mercury frequently sinks from 15 to 25 degrees below zero in winter, and rises to 96 in summer. In New-York, it is not a remarkable occurrence for the mercury to sink below zero in winter, and to rise to 90 and even to 96 in summer—a difference of nearly a hundred degrees. In London, from the commencement of 1812 to the end of 1824, (thirteen years) the mercury never sunk but twice below 10 deg. and rose but twice above 86 ; the highest average was 83, and the lowest 15, making the mean difference between summer and winter 68.

Mode of Living.

Not only Americans who have been abroad, but all foreigners who have been among us, agree in this ; that in no country is the table loaded with such profusion as in ours. I speak not of the sumptuous entertainments of the rich, but of the every-day meal of all classes from the labourer to the most opulent. Take for example, the country farmer, who works his own land. In the morning he sits down to a breakfast of tea or coffee, bread and butter, eggs, ham or a steak, or cutlette of some sort, potatoes, &c. His ordinary dinner is boiled beef and pork, with almost every variety of vegetables, and cider or beer. This is usually about 12 or 1 o'clock ; and at evening he has his tea, bread and butter, dried beef or cold meat, and now and then cakes and pies, sweetmeats, &c. This is his common fare ; but if he

happens to have a friend to visit him, his table groans under the load of every thing in the way of good eating and drinking our country affords. Now compare this with the living of the French farmer of the same grade. His breakfast is a roll of bread, a cluster of grapes or an apple, and some thin weak wine, not as strong as our cider. His dinner consists of bread and vegetables in the form of soup or potage ; if he eats meat at all, it is literally cooked to rags, and his thin wine. Instead of our tea he has a roll of bread and a glass of wine again. In England it is far more substantial ; but with little variety. Tea, oatmeal and milk, or bread and cheese, and malt liquor for breakfast ; meat, bread, and vegetables with malt liquor for dinner ; and bread and cheese with the aforesaid beverage for supper. But while the poor day-labourer in France and England is compelled to subsist almost entirely on bread and potatoes, with us he eats animal food three times a day, with abundance of bread, vegetables, and even butter and cheese. In the country they will not, to use their own expression, “do a stroke of work” without as much as they can eat and drink, and that commonly at the expense of the employer.

Our first boarding-houses may be taken as a specimen of the manner of living of a considerable portion of the community in our large towns. The breakfast is usually at eight, and consists of tea, coffee, bread and butter, potatoes, eggs, broiled fish, beef-steaks, mutton chops, and hot cakes or fresh rolls. At eleven, soup, cold meat and tongue is served up, and at three, a dinner of fish, flesh, and fowl—roast, boiled, and broiled of all sorts—with every vegetable common

to our climate, followed by puddings, pies, and fruits, with cider, beer, or brandy and water as ordinary drink; and these things are not served out with a sparing hand, but in quantities that strike the European as extravagant and wasteful. Tea is prepared at six or seven, accompanied by toast, bread and butter, cakes, &c., and not unfrequently something in the shape of supper makes its appearance about bed time. Now the most remarkable peculiarity in all our meals is what may be emphatically called an American breakfast—a meal no way inferior in quality and quantity to a European dinner; and one, I am thoroughly convinced, that occasions more weak stomachs than can possibly be imagined by those who have not paid particular attention to this subject. To the labouring man who rises at four o'clock, such a breakfast at eight may not be injurious; but persons not in active business, females, and especially those of both sexes who do not rise before seven, a repast of this kind at eight cannot, with few exceptions, be long made with impunity.

When we first rise in the morning the system is restored to its full vigour, and may be compared to a clock that is just wound up, and we have no need of nourishment till the energy accumulated by repose is partially wasted by exercise. We feel no desire for food, of course the stomach is not prepared for digestion; for in order to secrete a healthy gastric juice and perform its functions promptly, it must acquire a certain degree of tone by fasting, which is indicated by appetite. Now if food is taken before the stomach is thus prepared for it, or in other words, when we

have no appetite, it acts tardily ; of course the solution of the food is apt to be more or less imperfect, and a constant repetition of the same thing will at last weaken its powers. Those who are blessed with a strong stomach may for a time at least, experience no inconvenience from a hearty breakfast the moment they are out of bed, but it is far otherwise with him who has a weak one. He feels oppressed and incommoded by his food very soon after rising from table. He puts his hand to his forehead and finds it hot, and immediately complains of pain and heaviness ; many of the symptoms already described appear in succession, and after an uncomfortable morning he has but a poor appetite for his dinner. Ten to one he does not suspect the real cause of his unpleasant feelings, but fancies he has "a foul stomach," or is something bilious, and is much more easily induced to swallow whole boxes of pills than to make any alteration in the quality of his breakfast.

As I before remarked, the labouring man who first spends three or four hours in active employment, may go to an American breakfast without danger ; but not so the comparatively inactive. In this respect I look upon our fashionable boarding-houses as a fruitful source of indigestion. How often do we see persons, there of both sexes, coming directly from their bed-chamber to the breakfast table, and stimulated by the example of others and the savory dishes before them, eating heartily of steaks, cutlettes, ham and eggs, &c. without the least real appetite. But the evil does not exist in our boarding-houses alone : who has not seen in the most respectable families, a pale-faced girl of

sixteen or eighteen swallow as much beef-steak in half an hour after appearing in the morning as would answer for her dinner? Or if she shows any disinclination to a small bit at least, she is immediately addressed by a fond parent with, My dear, you don't eat any thing; I am afraid you are ill. Do try to take something, and a thousand other affectionate inducements to eat what is not required. I know there are many well informed persons who, aware of the bad effects of meat-breakfasts, content themselves with eggs, bread and butter, toast, &c. but they constitute a very small part of our population, and even they are generally unconscious of the vast difference as it respects health between eating the moment they are out of bed, and waiting till they have an appetite.

If eating without an appetite is injurious, going too long without food is apt to be equally so, by inducing us almost always to eat far too much. Thus the merchant hurries down his early breakfast and then goes to the counting-house, where he not unfrequently remains till a late hour in the afternoon, without tasting any thing. In this way his appetite becomes very keen, and in order to satisfy it he swallows his dinner almost without chewing, eats much more than he requires before he feels that he has enough, and then takes wine or brandy to relieve the uncomfortable sensation of fulness which supervenes, and having finished the business and fatigues of the day, gives himself up to his nap or lounge on the sofa. The consequence is, by the time his fortune should be made, he has laid the foundation of a train of distressing complaints, depending upon indigestion, which destroy all the long

promised pleasures of ease and retirement, embitter his days, and give employment to the doctor and apothecary.

But I cannot leave this subject without urging upon my readers the immense importance of observing the simple rule, never to eat without an appetite. Let them mark the difference in their feelings when they have taken a walk or drive fasting, which has not only given a high relish for breakfast, but has so quickened the action of the stomach that they have eaten more and digested it better than they ordinarily do. On the other hand, if the stomach is oppressed with food before it demands it, nothing like a healthy appetite is acquired for dinner, though the acrid remains of the imperfectly digested breakfast, together with the habit of eating at certain hours, occasion an uneasy sensation which is often mistaken for real hunger. If a substantial dinner is now taken, the stomach is slow in performing its office, and is the seat of uncomfortable feelings, weight, and fulness. To relieve these and rouse the oppressed organ to greater exertions, stimulants such as wine and brandy are resorted to, and they will have the effect for a time; but it is much like loading a feeble horse beyond his strength, and then applying the whip and spur to quicken his movements. And as certain as it is that the horse will sink the sooner for being flogged to perform impossibilities, so certain it is that these stimulants will at last give the finishing stroke to what little power the stomach may still possess.

All our most eminent physicians agree in this one point, that as a people we eat far too much hearty

food ; that is, we take in more rich nutriment than we require, and the consequence is, our system becomes overloaded and oppressed, our organs are clogged in the performance of their several functions, the circulating fluids become too thick and stimulating, and the proneness to derangements and diseased action greatly increased. Hence arises a large proportion of the inflammatory and febrile diseases amongst us, and hence it is that copious blood-letting and active medicines are so much more required in America than in most other countries—a fact admitted by all those physicians whose opportunities of observation have enabled them to form a correct opinion on the subject.

It is a popular notion among us that a considerable allowance of animal food is absolutely necessary to perfect health and strength ; for this reason all eat it once, many twice, and some three and even four times in the twenty-four hours. Now nothing is easier than to prove this a mistaken idea, by referring to nations who have firmer constitutions than ourselves, and who inhabit both colder and warmer countries than our own. “ We would beg leave to state,” says the *Journal of Health*, a work that promises to be exceedingly useful, “ that the large majority of mankind do not eat any animal food, or so sparingly and at such long intervals, that it cannot be said to form their nourishment. Millions in Asia are sustained by rice alone, with perhaps a little vegetable oil for seasoning. In Italy and Southern Europe generally, bread made of the flour of wheat or Indian corn with lettuce and the like mixed with oil, constitutes the food of the most robust part of its population. The Lazzaroni of Na-

pies, with forms so active and finely proportioned, cannot even calculate on this much ; coarse bread and potatoes are their chief reliance ; their drink of luxury is a glass of ice-water slightly acidulated. Hundreds of thousands, we might say millions of Irish do not see flesh meat or fish from one week's end to the other. Potatoes and oatmeal are their articles of food. If milk can be added, it is thought a luxury. Yet where shall we find a more healthy, robust population, or one more enduring of bodily fatigue, and exhibiting more mental vivacity ? What a contrast between these people and the inhabitants of the extreme north—the timid Laplanders, Esquimaux, Samoideans,—whose food is almost entirely animal."

If we were to judge of the effects of an animal or vegetable diet by the health and longevity of those who have uniformly adopted either, we should not think most favourably of the animal diet. Indeed, it is an uncommon thing for great meat eaters ever to attain old age, while it is recorded of all those, so far as I am acquainted, who have arrived at or passed one hundred years, that they invariably used animal food very sparingly if at all, and most of them so seldom that it could not be considered a part of their diet ; but subsisted entirely on bread, vegetables, and milk.

Another popular notion is, that feeble delicate persons require very nourishing food, such as beef, rich soups, jellies, &c. in order to give them strength—than which there cannot be a greater error. Their system may be compared to that of the infant which requires only the lightest and simplest food, possessing a great share of irritability, (which is generally

connected with weakness,) and easily excited to unhealthy action by any undue stimulus. But nothing will be more difficult than to convince such persons that they do not need *at least a little* animal food, or to persuade them to adopt the simple diet most suitable for them. They will often admit that wine and porter disagree with them, because their effects are so immediate that they cannot mistake them; but they cannot understand how rich food can have exactly the same effect, to a certain extent, as wine and porter; and that if the one is hurtful, the other must be.

It is almost impossible to convince a person that the thing he is most fond of is hurtful to him; but when he is once satisfied that it is so, there is generally but little trouble in inducing him to renounce it. He feels himself weak—he infers from this that he has need of very nutritious food, and his friends, unconscious of the fact that it is not the quantity eaten, but the quantity digested, that nourishes the system, and that all that is eaten and not digested overloads and oppresses it, tell him if he does not eat hearty things he will not recover his strength. He makes the trial, but the more he eats the weaker he grows, because he overloads his system. Medicine is then resorted to, which unloads the machine and re-establishes its natural movements. Now, instead of hearty food let him try that which is very light and digestible, and he will soon come to the conclusion that it is altogether the most strengthening.

It is very desirable that people, as it respects themselves, should be undeceived on the subject of animal food, though it would be directly against the pecuniary

interest of the medical profession ; for it will be readily admitted by every intelligent physician, that an immense proportion of his business arises from the effects of too hearty food. What occasions two-thirds of all the inflammatory and febrile diseases? but causes in themselves not serious, operating upon a system highly susceptible of diseased action from being overcharged with stimulating and nutritious matter. All agree that the animal machine requires to be sustained with nourishment, in proportion to the wear and tear to which it is exposed ; of course, that the hard labourer demands altogether more than the idle and inactive. According to this rule, if the hard labourer eats meat twice a day, his employer, who only walks about and inspects his business, can need but a very small quantity once a day ; while his wife and daughters, who only go out occasionally, and his professional son, who spends much time over his books, should never taste any thing heartier than milk, bread, and vegetables. But those in easy circumstances cannot conceive how meat should be bad for them, when they have eaten it from their infancy ; neither will the confirmed dram-drinker be convinced that he is daily swallowing poison, till it produces its gradual but certainly fatal effect. “ In our climate,” says Dr. Paris, “ a diet of animal food cannot, with safety, be exclusively employed. It is too highly stimulant ; the springs of life are urged on too fast, and disease necessarily follows.”—If this can be said of England, what must be inferred of America, whose summers more resemble those of the West-Indies than of England ?

Eating too fast may be set down as one of our national peculiarities, as every foreigner on first coming among us is forcibly struck with the rapid manner in which we devour our food. If he dines at an hotel or on board of one of our steamboats, he sees the courses of meats vanish, before he has finished his soup, and if he promises himself a comfortable half-hour over his dessert, he finds himself left alone and in the way of the servants. This canine mode of feeding is more common perhaps in some sections of the union than in others, but prevails generally, I believe, to a greater or less degree at all our public tables; though I am not disposed to admit that the latitude of a place may be ascertained with tolerable accuracy, by the number of minutes the inhabitants spend at their dinner, as has been stated by a late traveller. At the private repast the same habit exists, also, to a very great extent, and I am thoroughly convinced, that no one apparently innocent habit is attended with more really pernicious consequences. The food is swallowed whole or nearly so, instead of being minutely divided by mastication and mixed with a suitable quantity of saliva, so necessary as we have already seen to healthy digestion. A greater quantity is taken than is required before the appetite subsides, for in fact, we overload the stomach before it has time to indicate that it has received enough. It is in this way many persons eat too much who would be shocked at the charge of gluttony; for if they eat more than they can easily digest, though not one quarter as much as is eaten by others, it is overeating in every sense of the word. The stomach is distended with a mass of solid

matters which soon begin to swell, distending it still more, by its bulk preventing its proper contractions, and by its solidity almost bidding defiance to the strongest gastric juice, and not unfrequently portions of meat, cheese, vegetables, fruits, &c. pass through the stomach and bowels and are at last discharged in a state so entire and unchanged as to be easily recognisable. Can any reasonable being suppose that nature will be thus outraged with impunity? No! rest assured. Though slow to take vengeance, it will nevertheless certainly come at last, and she will make her victim feel the full force of that lash whose keen tortures are only known to the dyspeptic and hypochondriacal invalid. The mischievous effects of fast eating are far from being confined to those who do so habitually. Those who would take time to thoroughly masticate their food, gradually fall into the same error from the force of example, or hurry through their meals for fear of appearing singular.

Spirituous Liquors.

The immoderate use of distilled liquors is a cause of indigestion, about which so much has been lately written and said, that it might seem almost superfluous to comment largely upon it here—but that it is a practice so pregnant with evil, so destructive of life and human happiness, that the warning voice of those who are competent to estimate all its horrid consequences, should never be silent against it. In all civilized countries, this evil exists to a greater or less degree; but in our own, the cheap rate at which distilled liquors

can be obtained, has rendered the habitual use of them, especially among the labouring classes, more general than in almost any other. Even in the higher orders of society, their desolating effects are but too visible ; though the popular current now begins to set strongly against them, and if the man of respectability is comparatively less often seen debasing that intellectual part which alone gives him a resemblance to his Maker, and deliberately sinking himself below the brute creation, the innumerable cases of dropsy, dyspepsia, liver complaint, apoplexy, palsy, and a host of other maladies, which can with certainty be referred to the nefarious products of distillation, and daily demand the physician's aid ; bear evidence alas, but too conclusive, that no rank or station has been beyond the reach of their deadly influence. The effects of spirituous drinks upon the digestive organs, are the following : taken with the food or soon after it, they rouse the stomach to act upon its contents with greater vigour, and the liver to pour out more bile than ordinary. This accounts for the relief given by a glass of brandy to the unpleasant sensations sometimes experienced after eating fresh pork, roasted goose, &c. Hence persons with rather weak digestion, often get in the habit of constantly taking spirits with their meals. It is unnecessary to say the stimulus is unnatural. The stomach at last becomes tired of being thus goaded on to extra efforts, or in other words, becomes insensible to its effects and sinks into a torpid state, constituting one of the worst forms of dyspepsia. The same thing takes place in the liver : instead of pouring out bile in abundance, as at first, its functions become greatly de-

ranged; it is the seat of chronic inflammation; its healthy structure is destroyed; and often great enlargement takes place, occasioning dropsies and a variety of other diseases. When dilute alcohol is taken upon an empty stomach, (as appears from late experiments,) it excites its vessels to pour out a great quantity of mucus, which, uniting with the alcohol, decomposes it in part, and acid is generated. This last passing into the bowels, irritates their nerves, and occasions a considerable flow of bile from the liver. In many persons, two or three glasses of wine taken on an empty stomach before going to bed, will excite the liver to pour out so much bile that it regurgitates into the stomach, producing pain in the head, giddiness, bitter taste in the mouth, nausea, and even vomiting of clear bile on first rising the following morning. This effect seems more immediately injurious to the constitution than when spirits are taken with the food; for we see the man who tipples at all hours soon breaking down with disease, while he who drinks hard with his dinner, may hold out for a longer time, though he shares the same fate at last.

Want of fresh air.

Among our females of respectability, confinement to warm apartments in winter, and want of exercise at all seasons, may be set down as a common cause of indigestion. This sort of in-door existence, may unfortunately be said to be almost a national characteristic of our married ladies. How many thousands of them never leave the house except on Sunday, or

once in several weeks, to visit a friend or the shop-keeper ; and the habit of going out daily for the sake of air and exercise alone, so universal in other civilized countries, is scarcely known among them. The consequence is, most of them are blanched by seclusion from the fresh air, nature's great restorative ; and very few have much of the rosy tint of health, or are entirely exempt from some of the symptoms of indigestion. The frame is delicate and feeble, the system irritable, and its functions easily deranged by trifling causes ; and the mind morbidly sensitive, not unfrequently impairing the health by its immoderate emotions. But the evil does not stop here, for the offspring will be certain to inherit more or less of the mother's constitution and proneness to particular diseases, as it does her complexion, temper, and other peculiarities. We hear a great deal of hereditary gout, consumption, madness, &c. but there are undoubtedly many other diseases, though not at all suspected, that are quite as much so as they.

The *remittent* and *intermittent* fevers, so prevalent in all our new settlements, especially in the neighbourhood of the great lakes and rivers, and generally known by the names, bilious fever, lake fever, fever and ague, &c. are very commonly followed by indigestion. In some parts of the northern and western states, during the summer and autumn these fevers are occasionally so prevalent, that nearly one half the population is labouring under some of their forms at the same time ; and those who have been once attacked, very frequently have a return of the fever, though in a less violent degree, about the same season, for several years.

Few who have been often revisited by this pest of new countries, escape without more or less of weakness of the digestive organs ; which sometimes continues for years. They generally suffer from what I have considered as the first and second species. With some the appetite is very variable ; with others, unnaturally great. Some are subject to constant acidity, and others to the train of symptoms termed bilious. When these fevers are protracted to a great length, they often occasion enlargements of the liver or spleen, which are not unfrequently very slow in disappearing ; but in far the greater number of cases, weakness of the stomach and derangement of the biliary functions are the consequence. In these the stomach would most probably recover its tone, and the liver its natural action in a reasonable time ; but for numberless imprudences in eating and drinking, of which the invalid is guilty. For as the fever subsides and the strength begins to return, the appetite becomes voracious, though the stomach is in a great measure incapable of dissolving all it seems to demand ; and very few have reason or philosophy enough to restrain them from unwarranted indulgencies. Those who have least discretion, eat heavy indigestible articles which the stomach is too weak to dissolve ; and those who give themselves great credit for a prudent choice of food, occasionally take so much as to overload the stomach, and thus produce by quantity the same evil which the others produce by quality. Perhaps there is nothing more difficult, even when the invalid is a physician, (and of all men should know how to control himself in this respect,) than to avoid one or the other

of these errors ; or to say to that appetite little less than canine, "thus far shalt thou go, and no farther."

Habitual costiveness is a cause of indigestion too well known to require much notice here. From what has been said heretofore, it will be easily understood why a deviation from the healthy performance of function in one part of the alimentary canal, should soon involve the rest ; and why the stomach from the intimate connexion which exists among all the digestive organs, will not be long in responding to any irregularity of the bowels.

There is but one more physical cause which I shall mention, and that has been set down by Europeans as the approbrium of Americans ; I mean the chewing of tobacco. Though this loathsome practice is undoubtedly fast decreasing among the higher orders of society, and cannot be said to be peculiar to us, it is yet far more general here than in any other equally civilized country. This poisonous plant is injurious when chewed in considerable quantity, by the great waste of saliva it occasions, by impairing the appetite and giving rise to tremblings, watchfulness, and other symptoms indicative of its effects upon the nervous system. It is thought by many, that tobacco cannot be hurtful because thousands are constantly using it without any apparent evil consequences ; but this fact only shows what a good constitution will bear, without any more proving that tobacco is innoxious than it does when applied to rum. I have seen the most marked improvement in the appetite and general health after laying it aside. Smoking, if considerably practised, may be equally injurious as chewing.

Moral causes.

The most melancholy cases of derangement of the digestive organs are occasioned by moral causes, such as great grief for the loss of friends, severe disappointments in love, or the pursuits of ambition ; reverses of fortune, loss of property ; in fine, all immoderate emotions of the mind from whatever cause, if long continued, have a powerful effect upon the digestive apparatus, and not unfrequently bring about the worst kinds of derangement. How it is that the mind exerts such an influence over these organs is not easy to be explained. Like many other laws of the animal economy, as well as of nature generally, it is involved in impenetrable obscurity ; but the fact itself cannot be doubted. From the intimate connexion between these organs and the mind, any disorder of the one will immediately show its effects upon the other. Thus great mental affliction disorders the stomach and liver, and these in turn react upon the mind, adding new horrors to the gloom that hangs over it. In this way they may go on disordering and being disordered, till complete insanity is induced, or fatal disease in the sympathising organs.

I have said that when indigestion is produced by physical causes, it often occasions great pain in the head, breast, or sides ; but when it is owing to moral causes, instead of pain, I believe the mind is more frequently made to suffer, though other organs, as the heart, lungs, and kidneys, now and then sympathise and attract the whole attention of the invalid. If his physician attempts to convince him that deranged di-

gestion is the cause of all his sufferings, and that the other parts of his system are perfectly sound, he will be apt to lose all confidence in him, and fancy that he has entirely mistaken his complaint.

A long residence in warm climates often renders the digestive organs peculiarly irritable, of course very susceptible of the effects of mental causes. Hence we find those who have resided within or near the tropics, perhaps have made their fortune and returned to more northern latitudes to enjoy it with their friends, are very subject to melancholy, hypochondriasis, and low spirits; and instead of happiness, find the remainder of their existence embittered by diseases that seldom excite commiseration, and are too often considered as altogether imaginary.

Treatment.

From what has been said it must be evident that the diet is the first and most important thing to be attended to, and without it is carefully regulated, all the complicated mixtures of the apothecary will give no permanent relief. It is true, many of them may for a time alleviate some of the most unpleasant symptoms, and thus encourage the invalid to promise himself a speedy cure; but a little longer trial dispels the flattering delusion; he finds that his disease is not removed, and the fond hope of health re-established vanishes into thin air. He flies to some other prescription—takes active cathartics, followed by bitters and stomachics without number—all have their short day of success, and are in turn discarded for some more approved specific. In this way one thing is

tried after another till the dyspeptic becomes sickened with loathsome drugs, and losing all confidence in the doctor and his art, gives himself up as incurable.

It is to be feared that physicians often lose their credit by paying too little attention to the diet. They are apt to leave too much to the discretion of the invalid, and in reply to the question, "Doctor, what may I eat?" instead of enumerating the articles, direct "light nourishing food, always avoiding such things as disagree with the stomach." Now if the dyspeptic adhered strictly to the last part of this advice, he would actually stop eating altogether, for every thing disagrees with him in the manner or quantity in which he takes it; but he attends only to the first part, which relates to light nourishing food, and in fact eats and drinks whatsoever he most fancies. In this way I have known persons labouring under many of the worst symptoms of dyspepsia constantly taking pills at night and bitters through the day, and eating beef-steaks, or mutton-chops, for breakfast, a hearty dinner of roast and boiled, and toast saturated with butter with their tea; at the same time declaring with great gravity and really believing it too, that they confined themselves to a very light diet, because they did not so much as taste puddings, pies, cellery, cabbage, nuts, and cheese. It is absolutely necessary that the physician should enumerate such articles as may be eaten and forbid every thing else. I know that by so doing he will now and then lose the good opinion of his patient by interfering with his appetite, and the charge of "*starving*" will be brought against him; but he will act consistently with the principles of a humane

and honourable profession, and have the conscious approval of doing his duty as an honest man.

The first and all important lesson for the dyspeptic to learn is, that he has nothing to expect without a proper diet. He must, therefore, make up his mind to live entirely on such food as will agree with him, and not even taste any thing else. This, I acknowledge, requires no little firmness and self-denial, especially in those who must every day sit at a table covered with what are luxuries to others, though poisonous to themselves, and what they are stimulated to eat by their own appetite and the manner in which they are enjoyed by those around them. Add to this the frequent solicitations of, Do take a little of this! I am sure it cannot hurt you—you cannot think how nice it is—I know you will like it, &c. Now to resist all this, and from those friends we love most, nothing but a considerable degree of philosophic firmness will answer. But the resolution must be taken and religiously adhered to, or health is out of the question. Most persons will do this without great uneasiness; but the epicure, the real lover of good eating and drinking, will think it hard, and inquire perhaps if there is no other way. I answer, *No!* all the remedies on earth will not restore tone to the stomach while it is daily overloaded with food, which from quality or quantity it cannot digest. Can any reasonable being expect health without scrupulously avoiding the causes which impair it? Or can he for a moment imagine himself worthy of so great a blessing, who has not sufficient strength of mind to pursue the only path that leads to it? Does he look with horror upon

the man who deliberately seeks death at the mouth of the pistol? or with disgust upon him who immolates himself at the shrine of Bacchus? while he is as surely, though more slowly, committing suicide by indulging in eating? He must go back to the simple dictates of nature, so long stifled and neglected, adopt the plain fare which she requires, and in due time he will be rewarded with the enjoyment of her greatest gift.

There are thousands who are actively engaged in business and who have the appearance of good health, and yet are constantly incommoded, more or less, by their food. The reason is, it is too hearty for them, and they would no longer suffer in this way if they would adopt a lighter diet. For instance, if they always eat meat for breakfast, let them take plain bread and butter only, and instead of a great deal of meat for dinner, take half their usual allowance, making up the deficiency with bread. Still if there is uneasiness, lay aside meat altogether, and live on milk, soft boiled eggs, bread, and rice. I have known a gentleman who was incessantly tormented by his food, get rid of all his unpleasant feelings and grow fleshy on the four articles last mentioned.

As has been explained, the fault is not always in the solvent powers of the stomach. It is often the case that when it performs its office tolerably well, the liver does not furnish a sufficient quantity of healthy bile, of course the food is not entirely changed, the bowels are not excited to act as they should, and the tardy movement and accumulation of unaltered matters in them, give rise to much distress. In such

cases perfect relief is obtained by a diet that requires but a small quantity of bile to convert it into healthy chyle. Now animal food requires more than any other, and fat more than lean; but milk, soft boiled eggs, bread, and various farinaceous articles, as oat-meal, arrow-root, &c. require comparatively but little. I have repeatedly known the happiest effects from this diet, and the liver, no longer irritated by animal food, after a time to recover its natural action.

Besides the diet, another all-important part of the treatment is regular exercise in the open air. Every body is ready to admit the necessity of air and exercise, but what flimsy excuses are every day made, for neglecting to profit by them, while the stomach is allowed to become enfeebled by inactivity and confinement to the atmosphere of close rooms. But the habit of going out, not once or twice a week, but daily, and two or three times a day when the weather will permit, must be established, and when the weather is unfavourable, walking up and down a well aired apartment for several hours should be substituted. The best time for exercise is neither immediately before nor after eating, but between meals, and then not carried to the extent of extreme fatigue, as that is decidedly injurious. If the breakfast hour is eight, the proper period for exercise is about ten or eleven, and again one or two hours after dinner. This remark is only applicable to the cool seasons of the year, for when the weather is very warm, the invalid should not venture out during the heat of the day, but remain quietly within doors, and rise early and exercise in the cool of the morning, and again after the sun has

declined sufficiently to lose his power, but not in the damp of the evening. With regard to rising early I remark once for all, the invalid must not indulge in bed, especially in warm weather, as nothing is more relaxing to the system; nor sleep on feathers, but either upon a hair mattress or straw. Even if he requires a nap at eleven or twelve on the sofa, he should rise early for his walk. Diet will do much toward removing disease, but fresh air and exercise are indispensably necessary to restore strength.—What an astonishing change do we see wrought in dyspeptic invalids by a jaunt of a few days in the country. This is too well understood to require further comment.

In many dyspeptics the skin, from sympathy with the stomach, is not perspirable, but harsh and dry. To relieve this, sponging daily with water or vinegar and water, and frictions, will do much, and by means of that same sympathy, have a salutary influence upon the stomach.

The mind should be tranquil and cheerful, and all violent emotions as far as possible suppressed. Pleasant society, and change of scene, are often necessary to accomplish this, though the above regimen would of itself suffice in a large proportion of cases. Immense advantage may now and then be derived from a small quantity of medicine judiciously employed, but of this I shall speak more at large, when on the subject of treatment.

Treatment of the First Species.

The most prominent features of the first species are acidity, throwing up of a sour limpid fluid, sometimes nearly a pint at once, from half an hour to an hour after each meal, more especially after breakfast; often very acrid, giving the tongue and throat a scalded appearance, or bitter and mixed with oily matters, but rarely containing any large quantity of the food just eaten, heartburn, eructations and belching of wind, headach and heaviness over the eyes before and after eating, gnawing sensation at the stomach, great flow of saliva into the mouth, without a loss of appetite, or remarkable derangement of the bowels. These symptoms I have endeavoured to explain as depending upon the following causes. An enfeebled stomach, secreting a highly acid fluid, altogether unfit for the purposes of healthy digestion and fermentation of the food, from remaining too long in the stomach in an unchanged state. These symptoms are modified by the quality of the food. If vegetable, the fluid brought up is limpid and sour, accompanied by much flatulence; if animal, it is thicker, and mixed with fat or oil, and often bitter. The treatment consists in adopting such a diet as will best suit the weakened state of the stomach, correcting acidity, and restoring the tone of the organ. Before speaking of the diet, I must again call the attention of my readers to the great importance of never eating without an appetite, a positive and undoubted demand of the system for nourishment; and this must be distinguished from that

gnawing at the stomach, occasioned by acidity, which would induce them to eat almost every hour in the day. The stomach acquires force and activity by fasting, if not protracted too long, and should not be disturbed with food till it calls for it. For this reason the breakfast should be postponed from one to two hours after rising, unless something of hunger is felt in less time, and even omitted altogether, if this does not actually take place; and no food should be taken at any time, without a desire for it. The necessity of steadily and steadfastly adhering to this plan cannot be too much insisted upon. Eating and drinking must be only in compliance with the simple demands of nature, and not to coax and pamper a vitiated appetite; nor on the other hand, should the invalid go too long without eating, for then the acid fluids of the stomach act upon its delicate lining, and not only occasion more or less uneasiness in the stomach, pain in the head, &c., but greatly increase its weakness by irritating its nerves. Most writers on indigestion have advised a diet composed principally of animal food, when there is great acidity. Dr. Paris says, "We are however to look for permanent relief to a change in the food. All vegetables should be withdrawn, and a diet of animal food substituted." For what reason this is advised, it may be difficult to conceive, as we have the doctor's own words, that he does not consider the acidity to be produced entirely by fermentation. If he did, it would be easy to suppose that it is because animal food is less liable to ferment than vegetable. He says, "It has been a question often discussed, whether the acidity which occurs in the stomachs of

dyspeptic invalids, arises from the fermentation of the food, or from a vitiated state of the gastric secretion. It appears to me that it may occasionally depend upon either of these causes." He says, "The substances which are found by experience more particularly liable to create this disorder, are all fried articles, butter and greasy viands, pastry and crude vegetables, in short, whatever is indigestible may act as its exciting cause. Broths of every description, but especially those made of the meat of young animals, are a fruitful source of heartburn." Every body knows that some things are more digestible than others, and according to Dr. P. "whatever is indigestible may act as its exciting cause," of course whatever is most digestible, would appear to be the most proper food. Now the great point to be decided is, what is the most digestible food? In other words, what kind of food will be soonest and easiest converted into chyme and pass out of the stomach? Is it animal food? Arguments need not be brought forward to prove that it is not. No one, I believe, will assert that any kind of meat can be sooner digested than milk, bread, and some other articles. Why then is it so commonly recommended? We are told that it is least apt to ferment. But if acidity does not depend principally upon fermentation, and if animal food is not the most digestible, still why is it recommended? For no other reason I am convinced than that it has been long prescribed by those who have attributed acidity solely to fermentation. I am aware that in attempting to prove that an animal diet is not the best calculated to remove acidity, (I mean whenever I use this word, the

constant presence of too much acid in the stomach, indicated by the symptoms I have enumerated, as frequent ejections of it after meals, &c.,) I am contending with a long established prejudice, but I appeal to facts. The experiments of Tiedemann and Gmelin, satisfactorily prove that the quantity of acid even in the healthy stomach is greater in proportion to the indigestibility of the food. Thus in dogs, the acidity was greatest when they were fed on albumen, fibrin, bones, gristle, and the like, while it was less when they were fed on starch, gelatin, potatoes, and rice. But every dyspeptic knows that meat stays longer in his stomach, and longer satisfies his appetite than a piece of plain bread. The labourer knows the same. From experiments, it appears that boiled beef requires about twice the length of time for its digestion that bread does. The dyspeptic also knows that green tea, strong coffee, and wine, produce acidity; in other words, whatever *heats* or *irritates* the stomach, has this effect. Now, if animal food remains longer in the stomach than bread, it must necessarily exhaust its energies more than bread, and that it is more stimulating, we have Dr. Paris's own words, "a diet of animal food cannot with safety be exclusively employed. It is too highly stimulant, the springs of life are urged on too fast, and disease necessarily follows." Again he says of milk, "It is easily assimilated, and therefore affords a quick supply of aliment to the system, while it does not excite that degree of vascular action which is produced by other animal matters."

Here then are two articles at least, admitted to be sooner digested and less heating and irritating than meat. Now let the dyspeptic put these articles to the test of experience, notwithstanding he may fancy that tender beef sits better on his stomach than any thing else. Wine also, for a short time, imparts a pleasant sensation. Let him taste nothing for ten days but the tenderest meat and bread, (for he will not willingly live on meat alone) and let his drink be water : for the next ten days let him taste nothing but bread and milk. During both experiments he shall observe strict moderation in eating, and his exercise, shall be the same, and he will then be able to form some idea which diet agrees with him best. I have seen acid brought up from the stomach after nearly every meal, while a small quantity of meat was eaten at dinner only, and this symptom disappear almost entirely by merely omitting it. In the case of a lady, who had long suffered from the most intolerable periodical headaches, which were called nervous, but which evidently depended upon acidity, perfect relief was obtained in a few days by living on bread and water. A little carbonate of soda was added to the water. She might have taken milk, but had an unconquerable aversion to the taste of it.

During a long period of unceasing torment from acidity, I lived, for times, almost entirely on animal food, and again on bread and milk my habits of exercise, being always the same, and I became thoroughly convinced that while I took the former the state of my stomach gradually became worse and worse, while the most marked improvement resulted from the use of the

latter. It was in this way, from experience in my own person, that I was first led to suspect the correctness of the received opinion respecting animal food, and came to the conclusion, that the stomach would bear best that food which excited it least, and required the shortest period for its digestion. I then lived entirely on bread, milk, and rice for two or three months, when every symptom of acidity vanished.

Much subsequent experience, in the cases of others, has confirmed the opinion that meat is injurious. It is not from the trial of any particular diet, for a day or two, that any correct inferences can be drawn, particularly in the complaint now under consideration ; but it is only by steadily adhering to one course for weeks or months that we may be enabled to come at just conclusions. A few well authenticated facts must weigh more in the mind of every thinking man, than all the theories of the age ; and it is from facts alone, as noticed in my own person and in the cases of others, that I have been convinced of the bad effects of an animal diet, and of the efficacy of such an one as bread and milk ; and I request the profession to examine this subject more fully for themselves, and I have no doubt they will arrive at the same conclusions that I have.

The ease or difficulty with which food is digested does not, like common solution, depend principally upon its solidity. If so, fluids would be more easily digested than solids, and beef-soup and veal-broth would be more digestible than beef and veal roasted. But this is not the case. Food containing too large a quantity of fluid disturbs an acid stomach much more

than that of a certain degree of solidity, which perhaps is owing, in some measure, to its more readily fermenting. Thus a piece of dry bread will give no uneasiness, but if a large quantity of water be taken with it, there will be generally more or less acid brought up after it. Yet there are cases, particularly of the third species, where the stomach has become so exceedingly irritable that nothing but the bland semi-fluids, as oatmeal gruel, arrow-root, &c. can be borne. It is then necessary to subsist on these till the morbid irritability is removed.

Milk, the natural food of so large a proportion of young animals, cannot be properly placed among the fluid articles of diet, as it immediately coagulates on being received into the stomach. Dr. Johnson, whose valuable work on the stomach I have heretofore noticed, advises oatmeal gruel, (an article pre-eminently useful in the second and third species) without any distinction in all cases. That it is one of the most digestible articles of food, where there is no acidity, I am well aware; but my own experience is not in its favour in this species. It appears to be too fluid when made thin, and too tenacious when thick. I have known a gentleman to confine himself for weeks to gruel made of the best English oatmeal, scarcely tasting any thing else, not even bread. But the effect was constant acidity, giving the mouth and throat the appearance of being parboiled, and the secretion of saliva was equal in quantity to that occasioned by mercury. In fact he spit incessantly through the day, and it ran from his mouth in such quantities at night as to require cloths to be placed on his pillow to receive it.

The gruel was now discontinued and a light diet of a more solid kind substituted, and in a short time the acidity disappeared and he recovered his usual health and flesh.

As I before remarked, a really fluid diet will aggravate every symptom in this species ; but one that forms with the saliva, a light pulpy mass, possessing a certain degree of solidity, will be found to agree best. The stomach requires the stimulus of such a mass in order to act in a healthy manner. The diet which I have found to succeed best in a large majority of cases, is bread and milk. The bread should be plain and stale and eaten dry by itself, and the milk taken from time to time, as the inclination may be. The object of eating the bread dry, is that it may be well mixed with saliva, and this with the milk which is coagulated in the stomach, forms a mass possessing the requisite solidity. From these two articles alone, viz. a piece of plain bread and half a pint of milk for breakfast, as much of both as the appetite may demand for dinner, and the morning allowance, if there is appetite, for supper, I have seen the happiest results. There are many who are prejudiced against milk, and a few with whom it really does not agree, who will be obliged to adopt a different diet ; but I advise all who have no dislike for it, to give it a fair trial before they strike it out of their bill of fare.

It is unnecessary to say, that every one in his early days could eat milk, and if it really does not agree with him now, it shows how much his stomach is influenced by habit. But in almost every instance, it may be brought back to a state not to be disturbed by what once suited it so well. In one case I recollect,

where a milk diet was advised, it occasioned for two or three days both vomiting and purging; but perseverance conquered at last, and the stomach not only bore it pleasantly, but it was eaten with great relish.

There are many who cannot eat milk occasionally, for instance at supper after a meat dinner, who will find no inconvenience from it if they confine themselves to it entirely. In fact, I know of no one article that will be found on a fair trial to agree with so large a proportion of stomachs as milk. Those who are not accustomed to eat it may commence with a very small quantity at first and gradually increase it.

When the stomach will bear it, a soft boiled egg may be added to the allowance for breakfast, and boiled rice for dinner, making in all a diet of bread, milk, eggs, and rice. These articles taken together, form a bland unirritating mass of sufficient solidity for the stomach to act upon, and are easily changed into healthy chyle. I have seen the rose long faded from the cheek restored, and the thin emaciated form acquire its natural embonpoint, by changing the ordinary diet containing animal food for this.

Another advantage of the milk diet is, that it removes thirst, often a very troublesome symptom, as it induces the invalid to take too much drink. For those who cannot eat milk I have found the following diet to answer best. The breakfast should consist of plain bread, (the description called pilot bread is preferable to the ordinary kinds) and a soft boiled egg, without any drink if it can possibly be dispensed with—at most only a small draft of water. The bread should be slowly chewed till it becomes a soft pulp, and the water, if

necessary, should be taken a little time after eating, but never with the food. Those who are fond of tea and coffee may think it very hard, at first, to be deprived of them; but they have only to lay them aside for a few days, and then return to them to be convinced of their injurious effects. Nothing can be more pernicious than these two articles, whether taken strong or weak in this species. If weak, like all hot fluids they are debilitating to the stomach; if strong, they irritate its nerves, occasion a great secretion of thin mucus, and in a word, are most powerful agents in promoting acidity. The invalid need not expect to recover while he persists in using them.

The dinner, in the worst cases, should be nothing more than the breakfast, and the supper a bit of bread alone. When the acidity is comparatively but slight, the dinner, which should be about one or two o'clock, may consist of a very small bit of plain boiled mutton (most digestible when cold), roast beef, or boiled fowl, (avoiding the fat,) bread, and boiled rice. These articles should be eaten very slowly and chewed to a perfect pulp, that they may be well mixed with saliva. Respecting the quantity, it is utterly impossible to lay down any fixed rules. Many eminent writers on indigestion, among whom may be mentioned Drs. Philip and Paris, have said a great deal about carefully watching for the feeling of satiety in eating; in other words, they advise to eat slowly and stop the moment the appetite ceases.

Now all this sounds very well in theory, but I unhesitatingly assert, that it will not answer in practice. Governed by this rule, too much will

be constantly eaten, and I appeal to every dyspeptic of observation for the correctness of this statement. The feelings from one to several hours after eating must, alone, be the guide to the quantity. "It is quite preposterous," says Dr. Johnson, "to prescribe a certain quantity or quality of food and drink till the power of the digestive organs is ascertained. I care not if the dyspeptic invalid begins with a pound of beef-steaks and a bottle of port wine for dinner. If he feel as comfortable at the end of two, four, six, eight, or twelve hours after this repast as he did between breakfast and dinner of the preceding day, he had better continue his regimen and throw physic to the dogs; but if he has any of the feelings I have described after eating, he must come down to such a quantity and quality as does not produce this effect." If uneasiness is felt after six ounces of food, four, three, or two only should be taken till the stomach recovers sufficient strength to bear more.

When there is weight or uneasiness at the stomach, dull pain of the head, listlessness, drowsiness, disposition to sleep, or aversion to exercise, and the least depression of spirits after eating, the invalid may be sure he has taken too much; but if he is cheerful, inclined to exercise, and his forehead feels cool and free from pain or heaviness, he has not overstepped the mark. Little or no drink should be taken at dinner, if it can be dispensed with, without decided inconvenience. When it is actually required, water is the best. Wine or brandy may relieve the sense of fullness and weight at the stomach when first taken, but

they powerfully promote acidity and are ultimately hurtful. Dr. Johnson considers a small quantity of brandy and water as the best drink, if any is required; but from several months' experience of its effects in my own person and the testimony of far the greater number of patients, I am thoroughly convinced that it is generally not only useless but pernicious, unless where the stomach has been long accustomed to its unnatural stimulus, and the constitution is seriously impaired—in such cases it might not be prudent to omit it all at once. Drink, if taken at all, should be after eating, and not with the food. Many drink with their meals from habit alone, and frequently there is considerable thirst during the repast, which ceases altogether after digestion has commenced. It is a good rule never to take more than a wine glass full at once, and that as seldom as possible.

At six or seven o'clock, instead of tea; a piece of plain bread should be eaten if any thing is required; but nothing should be tasted for an hour or two before going to bed, as it will not be well digested, and is liable to increase the acidity. Many who dine on animal food can take a cup of milk with their breakfast and supper, with advantage, instead of coffee or tea.

The invalid perhaps may be anxious to know how long he is to confine himself to such a restricted diet? I answer, till his stomach will bear a more liberal allowance, be it longer or shorter; but I can assure him when he once becomes accustomed to this simple regimen, he will be more and more contented with it, and daily feel less desire for change. Nor must he expect every unpleasant symptom to vanish at once—

time is necessary to accomplish this ; but he will soon be convinced from the improvement in his feelings, that perseverance alone is requisite to perform a cure.

While on the subject of diet, I will mention an error into which those who suffer from this species very commonly fall : it is, the eating freely of such fruits as apples, peaches, &c. which for a little time seem to alleviate the uneasiness produced by acidity, and act as an aperient. This deceives the invalid, and he imagines they are beneficial to him, when in reality if indulged in, they greatly weaken the stomach by their indigestible quality, and increase the tendency to acidity. The invalid may convince himself of this by abstaining from them for some days and using the means suitable to correct acidity, and then eating freely of them, if he pleases at evening, and he will find the quantity of acid on his stomach astonishingly increased next day, with more or less headach, and incessant eructations after his meals.

When the stomach has long been weakened and the quantity of acid very great, a regulated diet alone will not be sufficient to give immediate and entire relief. It is then that a few simple medicines will be of immense advantage. The pernicious effects of acid upon the irritable stomach have been already pointed out, and it will be evident to every one, that in order to allow it an opportunity of recovering its tone, the acid must for a time be destroyed. This may be done by some article that will unite with it chemically, and form an innocent compound. Prepared chalk, magnesia, and the alkalies have this effect ; but no one of them will be found at the same time so pleasant and effec-

tual as the carbonate of soda. It unites with the acid and neutralizes it, forming a mild soluble salt, discharging its carbonic acid or fixed air, which is a grateful stimulant to the stomach. As often as there is gnawing at the stomach, an immoderate flow of saliva to the mouth, flatulence, eructations, and other symptoms denoting the presence of acid, a teaspoonful of the carbonate of soda dissolved in a small quantity of water may be taken, sufficiently often to relieve these symptoms, and the rush of fixed air through the nose will usually point out the propriety of its use.

In obstinate cases, the medicine I have found to be altogether the most efficacious, as it not only corrects the acidity but powerfully strengthens the stomach, is carbonate of iron, taken once or twice a day immediately after eating. If taken but once a day, it should be after breakfast, as the acid is then most frequently troublesome. The carbonate of iron neutralizes the acid, and forms a tonic compound which effectually destroys the irritability of the nerves of the stomach, and restores its strength. The medium dose is from one to two scruples, and as its taste is not unpleasant, may be mixed with a little water. It should be taken for some months, in order to have a permanent good effect.

Should the bowels be occasionally confined, they must be relieved by senna and salts, or some other gentle laxative; and if inclined to be constantly so, a pill, composed of aloetic pill three grains and extract of colocynth one grain, may be taken at night or even morning, noon, and night, if necessary to keep them regular; or should there be at any time great

disposition to doze during the day, restless nights, weariness in the back and limbs, and other symptoms usually denoting biliary derangement, cathartics must be taken till they disappear, as the acidity will be greatly increased by any disorder in the functions of the biliary organs or bowels. To conclude the plan of treatment, the necessity of regular exercise might be again urged upon the invalid ; but what has heretofore been said on that subject may suffice.

As the stomach recovers its natural action, the bill of fare may be gradually and cautiously enlarged. Though the dyspeptic should never forget that he has a weak stomach, and that nothing is more certain than that imprudence will bring back his old maladies. He must therefore make up his mind to live for years, if necessary, on a very plain diet. Tea and coffee must be renounced, and rich soups, gravies, fat dishes, cheese, pickles, salads, celery, cucumbers, and similar things carefully avoided as poisons. The best plan is to eat slowly of the plainest dishes on table, never indulging in variety, and for fear of eating too much of the substantial kinds, as meat, to be helped to the quantity intended to be eaten at first ; in this way it can be measured with the eye, and the danger of overloading the stomach diminished.

There are some who eat meat breakfasts, dine on rich viands, covered with luscious gravies, and high seasoned dressings, followed by a dessert of puddings, pastry, fruits, &c., and indulge in hearty suppers, who at the same time are constantly tormented with acidity, heartburn, headach, and depression of spirits—whose stomachs are only enfeebled in a comparatively tri-

fling degree, and who would not require the strict regimen I have advised, to re-establish their health. They have only to breakfast on bread and butter instead of meat ; dine on plain roast and boiled, with a moderate allowance of vegetables, avoiding rich dishes, every thing under the name of dessert, and their hearty suppers, to enjoy excellent health.— But such persons will rarely take advice in season. When they find the stomach slow in mastering the enormous load they have laid upon it, they prefer forcing it to greater activity by a draught of strong wine or brandy, and when they have so gorged themselves as to lose their appetite, they eagerly swallow the nauseous drugs of the apothecary, and then return to their former course, to speedily prepare themselves for another round of the doctor's prescriptions. If they could be persuaded to adopt a light plain diet, they would soon find a marked mitigation of their complaints, a degree of cheerfulness, and buoyancy of spirits, a relish for exercise, and all the rational pleasures of life to which they are strangers ; in a word, a measure of health more than sufficient to compensate for all their self-denial.

Treatment of the Second Species.

The second species, as we have seen, is characterised by a long train of symptoms termed bilious. Bitter taste in the mouth on first rising, yellow coat on the tongue, sallowness and heavy expression of the countenance, occasional feverishness, pain of the head, frequent attacks of giddiness, inclination to doze

or sleep, particularly after eating, great depression of spirits, feeling of weight, and occasional slight sickness of the stomach, bowels almost constantly confined, or relaxed with bilious evacuations. I have attempted to explain how the derangement of the stomach may involve the function of the liver, and how the unhealthy bile poured out by the liver may disorder the bowels. It must be evident therefore, that we have not only the stomach to regulate, but the liver and bowels also. To accomplish this, the diet must be suited to the condition of the stomach, at the same time, least likely to irritate or excite the liver; and such an one may be found among the different farinaceous articles, such as oatmeal, arrow root, and others of this class.

When the invalid is so feeble as to be unable to attend to any business, he will do well to confine himself for a time to oatmeal gruel, which may be longer used without dislike, than any thing else of the kind. From half a pint to a pint, with no other seasoning than salt, and a very little nutmeg to impart a light flavour, or a little sugar, may be taken three times a day, changing it from time to time, should there be any disrelish, for barley water to which a bit of lemon may be added, arrow root, rice water, or gruel of Indian meal. If there is appetite for any thing, a piece of plain bread or pilot bread may be added to the above articles. Let not the dyspeptic be frightened at this scanty allowance; he will not starve upon it—on the contrary, I have often seen it adopted for weeks with the happiest results.

Those who are able to take exercise in the open air, need not descend so low in the scale of living, but may breakfast on stale bread, or dry toast and a cup of black tea, dine on oatmeal gruel, to which milk may be added if preferred, and plain bread, at evening, a dish of black tea and a bit of bread, is all that should be taken.

During those periods of feverishness, loss of appetite, headach, &c., ordinarily called a bilious attack, nothing but gruel, barley water, or arrow root should be tasted; and immense advantage will be derived from eight or ten grains of blue pill, taken on going to bed, and followed by a dose of senna and Epsom salts in the morning. Sometimes it will be well to repeat this medicine every other day for a week, unless the feverishness is removed. In giving this advice, it is also necessary to caution the invalid against the too frequent repetition of active cathartics, particularly those containing calomel. For though at times they give great relief, it should be borne in mind that they excite the liver, and their repetition materially weakens the bowels, so that at length they can only be moved by medicine. But as it is necessary that the bile, so prone to accumulate, should be regularly evacuated, we must endeavour to assist nature in getting rid of it by the most gentle means.

It has been stated that the bile sometimes becomes so thick and tenacious as to be incapable of mixing with the food, but clings to the surface of the bowels like bird-lime, occasioning a great variety of unpleasant sensations. Now this morbid bile must be constantly carried off till the liver resumes a healthy

action. To accomplish this, I have found a pill containing one grain of blue pill, and two or three grains of aloetic pill, taken every night, to answer every purpose. This pill should produce one and only one evacuation the following day. If it produce more, the quantity of aloetic pill must be diminished, as purging is not desired; and if it has not the proper effect, one may be taken night and morning, or a soda powder containing a little epsom salts may be taken in the morning. No danger need be apprehended from the grain of blue pill, as so small a quantity may be used for a considerable length of time without risk. I repeat it again, and wish to be distinctly understood, that purging should never be excited, except when there is feverishness, and that one evacuation a day, and that not too fluid, is all that is generally necessary.

I have said that active cathartics, especially those containing much calomel, excite the already irritable liver, and weaken the bowels; with this fact, every one must be acquainted, who knows any thing of the animal economy, but sometimes such cathartics are required to remove large accumulations, and should be assisted in their operation by drinking freely of thin gruel, and nothing but gruel and a little bread should be eaten for two or three days after. This will give the liver and bowels time to recover from the effects of the medicine, while a few ounces of meat or other hearty food taken too soon, would not only deprive the invalid of the benefit of the cathartic, but lay the foundation of a more speedy renewal of all the symptoms that required it.

It may be well to remark here, that if the invalid values his health or strength, he will not tamper with medicines, or take even an active cathartic without the best advice, as he may injure himself more by one improper step, than many days of strict regimen can do him good.

Sometimes the secretions of the liver are so exceedingly depraved, that it may be necessary to take small doses of blue pill two or three times a day for several weeks, living entirely on farinaceous food. This course when judiciously managed, will be occasionally of immense advantage, as there is no medicine with which we are acquainted, that has a happier influence upon the action of the liver, than the blue pill, but it should always be given with caution, and never in sufficient quantities to salivate; of course should never be administered except under the eye of a physician. Instead of the blue pill, the condition of the liver and the general health will be now and then materially improved by sponging the body, particularly the trunk and extremities every evening for a quarter of an hour or more, with warm water containing half a drachm of nitric acid, and the same quantity of muriatic acid to the pint. The proportion of the acids may be increased or diminished so as to occasion a slight itching or tingling sensation of the skin, but nothing more; at the same time the bowels must be kept open, (that is, one free motion daily,) with a few grains of aloetic pill, to which a little extract of colocynth may be added if necessary, to increase the effect. Perhaps during the use of the acid wash, or blue pill, the invalid will have occasional turns of extreme depres-

sion of spirits, and such entire prostration of strength, that the least exertion even to stretch out his arm to help himself to any thing, seems impossible. The mole-hill in truth then becomes a mountain; but this is not real weakness—it is the depression occasioned by an accumulation of bile. The head feels hot and is now and then dizzy, the hands tremble, the heart palpitates at every emotion or sudden noise, there is occasional slight chilliness and alternate flashes of heat, entire loss of appetite, and sometimes from the bile regurgitating into the stomach, rending pain in the head, which frequently ends in bilious vomiting. These symptoms will be all removed by a dose of blue pill and senna and salts, or some other mild cathartic.

It has been mentioned in the description of the symptoms that nothing is more common than pain and tenderness in the side or pit of the stomach, inability of lying on one side, pain in the shoulder and numbness of the arm, which it is to be feared, have been sometimes mistaken for signs of inflammation, and have led to bleeding, blistering, and the use of mercury, to the decided injury of the patient. The fact is, pain and tenderness in these cases, are altogether more frequently produced by derangement of function than by inflammation, of course, do not require such debilitating treatment. This is the opinion at present, of most of the eminent pathologists, and should teach us to be very cautious in the use of the lancet and mercury.

When by a steady adherence to the above rules the tongue becomes clean, the head feels cool and free

from pain, the complexion clear, the bowels easily kept regular, and the food is taken with relish and sits well on the stomach, vast advantage may be derived from a cautious use of bitters and tonics, such as a watery infusion of gentian and columbo, or the sulphate of quinine. Half a grain of the latter dissolved in water, taken three times a day before eating, I have found far preferable to any other tonic, and have seen the most marked advantage derived from it, without increasing the dose beyond a grain. But this is truly dangerous ground ; for without the greatest prudence and discrimination, tonics will be not only useless, but decidedly hurtful, and often dangerous. Every thing depends upon their being administered at the proper time, that is, when the system is prepared for them.

As the health improves, the bill of fare may be extended a little. The breakfast and supper should still consist of a dish of weak black tea, with milk and sugar, and plain bread or dry toast, (a cup of milk, if it does not disagree with the invalid, is far preferable to the tea.) The dinner may consist of milk, a soft boiled egg, any of the farinaceous articles, as oatmeal, arrow-root and rice, bread, roasted apples, and now and then a mealy potatoe if it can be borne : no description of animal food should be taken.

The rules already laid down respecting quantity, must not be forgotten, but a strict watch kept that the appetite does not take the reins at the expense of the powers of the stomach.

On account of the intimate connexion that exists between the skin and the digestive organs, its condition should be carefully attended to ; for as those or-

gans occasionally suffer from sympathy with the skin, so may they also be benefited through the same medium. When it is dry and harsh, a warm bath once or twice a week, with thorough cleansing by means of brushes and soap, will have a tendency to re-establish the insensible perspiration, and restore the skin to a healthy state. In order to invigorate the surface, sponging every morning with cold vinegar and water, particularly during the warm season, and then rubbing dry with a coarse cloth, will have an excellent effect, preventing the liability to cheeks of perspiration, and strengthening the whole system.

I wish to impress upon my readers the great usefulness of these ablutions, particularly those of them whose surfaces are relaxed by a residence in hot climates, and I can assure the invalid that he will not only receive much permanent benefit from this remedy, but will soon be delighted with its cooling and refreshing effects. The languor and lassitude more or less felt by every one after a sultry night, immediately give place to sensations of cheerfulness and vigour, after the cold ablution.

In adopting the foregoing rules, the invalid will do well to avoid every thing that has a tendency to excite profuse perspiration, such as exercising in the heat of the day, remaining in crowded rooms, sleeping on a soft bed, or in a confined apartment. He must exercise in the cool of the morning and after the sun has lost his power in the evening, though not after he has set, on account of the dew.

A proper attention to clothing will also be necessary, and the best rule under this head is to accommo-

date the dress to the weather, without much regard to season, even if it has to be changed several times during the day. As far as possible, such a quantity should at all times be worn as to feel comfortable. In damp chilly weather, though at midsummer, the invalid should wrap himself up, that his weak stomach and bowels may not suffer. It is not uncommon for some because they find themselves feeble and very sensible to changes of temperature, to wear flannel next the skin, even in the warmest weather—a practice which undoubtedly originated in ignorance, and has been propagated by prejudice. There is very little doubt that in summer its constant irritation tends greatly to increase perspiration, and bring about that weak relaxed state of the surface so injurious to the digestive organs. The propriety of flannel in cold weather, will hardly be questioned by any one. If the bath and ablutions are employed, and cotton is worn, instead of linen, during warm weather, flannel will hardly be wanted by the most sensitive. Cotton does not occasion, when damp with perspiration and exposed to a current of cool air, that sense of coldness so common to linen.

Treatment of the Third Species.

The distressing affections included under this head are attributed to a morbid sensibility, or irritability of the inner surface of the stomach and bowels; together with a vitiated state of the bile, and probably of the other secretions poured into the alimentary canal. Instead, therefore, of directing the treatment to the head, chest, or other parts secondarily affected, the

seat of the disease, viz. the digestive organs should occupy our principal attention.

Our first care must be to adopt such a diet as will be least likely to irritate or furnish acrid matters in the changes it may undergo, and as far as possible of such a bland character as shall allow the morbidly sensible surfaces to recover a healthy state. From what has been said, heretofore, of the farinaceous articles, such as oatmeal and arrow-root, it must be evident that they are better calculated to answer this purpose than any other, and experience has established the fact.

In the worst cases, nothing has been found to succeed so well as oatmeal gruel, which should for a time constitute the only nourishment taken. A short trial will convince the invalid if he can only take half a pint three times a day, that his sufferings are gradually alleviated by it, and that he actually gains strength, and a perceptible degree of cheerfulness and buoyancy of spirits, notwithstanding this scanty and at first perhaps insipid allowance.

I do not thus recommend oatmeal gruel as the only food in the worst cases, without having repeatedly witnessed its decidedly beneficial effects, and have generally seen a considerable degree of fondness acquired for it. Let the invalid commence then with it in such quantity as his appetite may demand, changing it whenever he ceases to relish it for arrow-root, rice-water, barley-water, and other similar articles; none of which, however, will be generally found to suit the taste so long, or bear returning to as often, as the oatmeal. Sometimes it may be necessary to continue

this diet for months, though in the majority of cases, at the end of two, three, or four weeks, bread, roasted apples, a little milk, and an occasional dish of black tea may be taken, but nothing else should be tasted till there is undoubted evidence that the complaint is effectually subdued. This, however, will not be a painful task; for after this plan is once spiritedly entered upon, the invalid acquires resolution and fresh confidence at every step. The obstacles which once appeared insurmountable will rapidly disappear, and the immunity from suffering will be justly considered an abundant compensation for all the short-lived pleasures of the palate.

It is really astonishing with what steadiness and ease the dyspeptic can follow such a course as has just been marked out, when he once becomes convinced of its effects, and has fairly turned his back upon the dangerous allurements of the table. Instead of longing after the rich dishes which he once prized so highly, he learns to look upon them with indifference, or regards them as palatable poisons, and takes his simple fare with a relish which all the refinements of modern cookery cannot impart. This is no fiction: hundreds—yes, thousands can attest to its reality.

The next thing to be attended to after the diet, is the regular evacuation of the morbid contents of the bowels. As has been mentioned, they are generally exceedingly slimy and tenacious, strongly adhering to the delicate lining of the bowels, and occasioning by their irritating and poisonous qualities those horrible sensations which no language can describe.

It is necessary then that the bowels should be tho-

roughly evacuated, from time to time, till their contents become of a more natural kind. To perform this, tolerably active cathartics will be sometimes requisite. At the same time it must not be forgotten, that cathartics in the present condition of the bowels will occasion more or less irritation, and often extreme suffering, of course should never be repeated oftener than is actually indispensable.

The invalid has always a great dread of cathartics, and with good reason, on account of the suffering they occasion, and is disposed to defer taking them as long as possible ; but of two evils we must choose the least, which is, to carry off the morbid matters, and this must be done by as gentle means as possible. The medicines to which I generally give the preference, are about ten grains of blue pill, with a sufficient quantity of denarcotized opium, or hyosciamus to allay irritation, taken at night, and a dose of Epsom salts, senna and salts, or castor oil, taken in the morning. Thin gruel or barley-water should be plentifully drunk to aid the medicine, and a little denarcotized opium taken as soon as it has had its effect, to compose the bowels. In this way much distress may be saved. It may be advisable to repeat the cathartic every day for a time, every other day twice a week, or less often as the symptoms may indicate. The evacuations should be carefully examined, as their appearance will point out the greater or less need of a repetition of the medicine.

- Sometimes the morbid matters will adhere so closely to the bowels that the foregoing medicines will not be sufficient to detach them. In such cases I have ad-

vised from five to fifteen grains of calomel, (as the strength may be) with from five to ten of Dovers' powder, to be taken at night, and the salts or oil in the morning, with the happiest effects; but as before stated, calomel should not be resorted to when gentler means will succeed; and generally in the worst cases, after the bowels have been cleared by it a few times, the blue pill will answer every purpose.

The plan just laid down would probably succeed in almost every instance, if steadily pursued for a sufficient length of time; but in some individuals the morbid sensibility of the stomach and bowels is of such long standing, as to require much time and patience to remove it. In such cases, Dr. Johnson of London, first recommended a trial to be made of lunar caustic in pills, and several eminent physicians have since given their testimony in favour of its great efficacy. The manner of giving it will be best understood by a history of the following case.

A young lady of this city had suffered for several years from a great variety of distressing affections, depending upon derangement of the digestive organs; such as constant pain and uneasiness in the stomach after eating almost any kind of food, incessant severe headaches and depression of spirits, pain in the side, painful sense of weariness in the back and limbs, so much so as to render the least exercise extremely fatiguing, violent palpitation of the heart, and great breathlessness from the least exertion, such as going too quickly across the room, or ascending a few steps. She had no quiet sleep at night, but was constantly disturbed by the most frightful dreams, from which she

often awoke bathed in perspiration, and dreading to fall asleep again, lest the same horrid spectacles might again present themselves.

Her complexion was extremely sallow and dingy, and her tongue, when suffering most, was not only clean, but of a bright red colour. The smallest quantity of any cathartic, as a teaspoonful of salts, operated violently, occasioning very great distress. All stimulants, as wine, and every tonic medicine, immediately excited pain, and greatly aggravated every symptom. She said she had not been able to bear tonics for the last five years. In February last, she could not sit up more than one hour at once without great fatigue, had not the least appetite, was easily agitated, her hands trembled, and her spirits were much depressed. After having taken freely of cathartics in the manner just pointed out, I commenced giving her a pill containing half a grain of lunar caustic, a quarter of a grain of denarcotized opium with a small quantity of ipecacuana, extract of colocyath and aloes, three times a day. If the pills did not keep the bowels free, a little salts was occasionally taken. Her only food was oatmeal gruel, of which she scarcely took half a pint a day. The proportion of caustic in the pills was increased till she took four grains daily. This course was pursued nearly eight weeks, when the caustic was discontinued, as the most decided improvement had taken place in her health. Instead of a teaspoonful of salts, she could now take half an ounce without any uneasiness. Her appetite began to improve, and she no longer felt her food, after eating; she slept quietly

at night, awoke refreshed and cheerful, and was free from her numerous painful sensations. First of April she took half a grain of sulphate of quinine in solution, three times a day, and a pill composed of one grain of blue pill, and two of aloetic pill every night, to keep the bowels regular. Her appetite was excellent, and her food was bread gruel, black tea, and occasionally a soft boiled egg. By the 10th June, she could walk two miles, and ascend from the cellar to the garret without much fatigue, was in excellent spirits, and perfectly free from all her former complaints, except occasionally a little headach when the bowels were not sufficiently free. She still continued to take about a grain of quinine three times a day, and the pills; she ate bread, milk, oatmeal gruel, a little butter, soft boiled eggs, some tender vegetables, and other similar articles. She now (August) says she is in better health than she has been for twelve years, takes no medicine except an occasional pill, is gaining her flesh, and has a good appetite: she is advised to make no alteration in her diet, with which she is perfectly satisfied.

When no uneasiness is felt in the digestive organs, but the force of the disease is spent upon the brain, heart, lungs, or other parts, the best effects may be expected from the simple diet just pointed out, together with the occasional use of such cathartics as are calculated to evacuate biliary accumulations. I have seen the most melancholy state of mind, termed by many hypochondriasis, and differing but little from insanity, together with a distressing local affection, depending upon the condition of the digestive organs, though

nothing wrong was felt in them, yield in a few weeks to this plan, and heard the invalid express much astonishment that such dreadful mental depression, and a local disease considered as unquestionably fatal, could have been removed by such simple treatment.

The invalid may without any risk adopt the foregoing plan so far as regards diet, but let him not tamper with medicines. How incompetent must he be to judge of the propriety of taking even an active cathartic, when the greatest medical skill and prudence are required.

As soon as the mind becomes cheerful, great advantage may be derived from exercise in the open air, particularly travelling, sponging with vinegar and water, and other means suitable to invigorate the system.

On the moral treatment, it will be unnecessary to dwell long. Suffice it to say, nothing can be more inhuman than to add in any way to the perturbed state of the invalid's mind or temper, either by lightly treating his complaints, or attempting to convince him that they are imaginary or magnified by him. Every effort should be made to soothe and alleviate his sufferings, for he stands in need of all the kind offices of friendship and the support and consolations of philosophy and religion, to render his condition bearable. He should not be urged to go out, or see company except when inclined; but so soon as the horrid load leaves his spirits, he should be encouraged to take exercise and amusement in the open air, his attention should if possible, be beguiled from the mental causes of his disease, whatever they may be, and nothing

perhaps will more effectually do this than travelling. In a word, let his friends recollect that nothing is more unnatural than for a person to imagine himself ill, or in immediate danger of death, when in the perfect enjoyment of health; and though the invalid's complaints are not perceptible to them, let them not uncharitably doubt his statements, because they are not confirmed by their own senses, but treat him with all the gentleness and compassion they would, if labouring under a fit of the gout or a broken limb. How keenly do we feel any want of compassion in our friends, when suffering from disease, and how materially may any mental anguish be aggravated by the ridicule of those we have loved best. Finally, let the connexions of the hypochondriac and dyspeptic invalid, if they would not add to the crime of inhumanity the soul-harrowing reflection of having driven him to the awful act of self-destruction, beware how they treat with lightness or derision a disease whose horrors never can be fully known, but to those who have felt them.

Conclusion.

Thus far the diet and regimen have been pointed out, which may be generally adopted by the dyspeptic with most advantage, till the digestive process is again performed in a natural and healthy manner. It may be asked, how long must he adhere to a regulated diet? The answer is, so long as he has a weak stomach; and this must depend upon a great variety of circumstances. Perhaps a year or two, perhaps the rest of

his life, as the stomach has been long in becoming enfeebled in many cases, so considerable time may be necessary to restore its pristine vigour.

By a regulated diet however, I would not be understood to mean precisely the articles enumerated in the treatment of the several species, but composed of such articles as the invalid shall find by careful observation and experience to agree with him best; and these will invariably be found to be the lightest and simplest kinds of food, eaten in moderation. For instance, animal food should be dispensed with in a great measure, particularly in summer, or taken in very small quantities. Tea, coffee, wine, and every kind of spiritous potation must be relinquished as common drinks, by those who have suffered from the first species, and black tea alone may be excepted to those who have suffered from the second and third, while the farinaceous articles, including the different bread stuffs, most kinds of vegetables, and fruits of easy digestion, milk, butter and eggs, should comprise the bill of fare.

Will any think this a hard course, thus to sacrifice the appetite to the health? I answer, pleasure and pain, a life of comfort, and a wretched existence, in a word, all that is comprised in the terms health and disease, are placed before them. Let them choose for themselves, and let no one think himself worthy to enjoy the greatest blessing that falls to the lot of man, if he has not firmness and self-denial enough to follow the only course by which it can be obtained. If he prefers a short life of alternate sensual indulgence, and mental and corporeal torture to length of days, temperance and contentment, let him give full scope

to his appetite, and add to the measure of his guilt and folly, the crime of self-destruction.

Perhaps it will be said, why is animal food so objectionable in this country, when it is allowed by most of the English writers on dyspepsia? I answer, much is owing to our climate. The great mass of English drink malt liquor the year round. Few I believe will assert that we can do the same with equal impunity; our summers are far too warm for a beverage of this sort.

But it is not the hard labourer, or man engaged in fatiguing bodily employment that I advise to abstain from meat; they seldom suffer from indigestion. It is the student or professional man, the shop keeper, the merchant, whose occupations are principally mental, and the female who passes a large portion of her life within doors, who are better without it than with it. If they taste it at all, it should be during the cold season of the year, and then very sparingly; but in the warm months they should avoid it upon the same principles that they do strong beer, and live upon bread, light vegetables, ripe fruit, milk, &c. Were this plan to be generally adopted, we should have much fewer cases of sick headach, bilious attacks, with fever, cholera morbus, dysentery, and many other diseases that might be mentioned.

In thus urging the comparatively feeble and inactive to abstain from animal food altogether, particularly in summer, I am far from believing that a very small quantity once a day cannot be taken without decided injury. But the danger is, if they taste it at all they will take too much. It contains too much nutriment in too condensed

a form, and the risk of overcharging the enfeebled system is so great, that total abstinence from it is the safest course.

Should it be too great a sacrifice for the gentleman to give up his nutritious food, let him turn ploughman, and then he may eat pork and beef three times a day if he pleases. For in the language of that very useful publication, the *Journal of Health*—"the best means to avoid injury from eating, as well as to preserve the healthy appetite unimpaired is, as much as possible, to avoid those occupations and pursuits which diminish the strength and vigour of the system."

Before leaving this subject, it may be well to notice more fully, one or two symptoms that of themselves are often very troublesome, and to make some cursory remarks upon some of the popular remedies for dyspepsia.

Habitual Costiveness.

In persons of sedentary habits, a confined state of the bowels is often a source of much inconvenience, and sometimes the principal cause of indigestion. I have already pointed out the means of obviating this difficulty when it depends upon derangement of the stomach and liver, and shall in this place give some simple rules for its relief, when existing as a primary affection. Nothing is more common than for those who suffer from a torpid state of the bowels to take, from time to time, some active cathartic medicine, such as calomel and jalap, tincture of aloes, or the great variety of purgatives vended under the name of

bilious pills. These all act smartly upon the bowels, and by repetition render them insensible to the natural stimulus of their contents, and thus actually increase what they are intended to remove.

The first point of importance is, as far as may be practicable, to break in upon the habit of constantly sitting, when this is the cause. Professional men and accountants, should invariably stand at their desk, and females may do the same in most cases, by having high work-tables. This of itself will often be sufficient to restore the action of the bowels. Much may also be done by visiting the water-closet at stated periods, say immediately after breakfast, whether there is inclination or not, and soliciting a movement.—These efforts may not be successful at first, but a little time and perseverance will at length often accomplish the desired object.

When these means fail, some alteration in the diet may be requisite. Bread of unbolted flour, or what is better, rye bread, is often very useful. But the article, I believe, which will least disappoint us, is a thin pudding, or what is sometimes called mush, made of rye flour, and eaten once or twice a day with molasses. In very obstinate cases, I have seen the most entire success from living upon it altogether, for a few weeks. When the molasses is unpleasant, a little butter, or sugar, or milk, with nutmeg to improve the flavour, may be used, though I consider the former as most efficacious. When any alteration of diet is rendered, by circumstances, difficult or impracticable, I have seen the best results from an injection of half a pint or a pint of cold water every day, a few minutes

before going to the water-closet. All that is necessary is a syringe, which every one can use himself.

One of the most common effects of costiveness and the effort to void hardened stools, is piles, and where these do not exist there is often a very troublesome itching of the part, or a distressing sensation as if insects were creeping about just within the extremity of the intestine. In all these cases, the cold water injection gives marked relief. In one instance, where the creeping sensation was, at times, so troublesome as to render the individual almost frantic, a complete cure was effected by it alone. It was necessary, at first, to use it repeatedly in the twenty-four hours, and it always gave instant relief.

Cough occasionally attends dyspepsia, and Dr. Philip has attempted to prove that the tendency of every severe case is to a species of consumption, which he calls dyspeptic phthisis. On the contrary, Drs. Johnson and Paris are opposed to this opinion, and maintain that dyspepsia rarely terminates in consumption, except where there is a marked predisposition to it. The latter doctrine appears to be best supported by facts; for though no one can doubt that dyspepsia may quicken the dormant seeds of consumption and then disappear as the more fatal malady progresses, we daily see individuals who have laboured under some of its forms for many years, without any such result, and even old persons who have been martyrs to it, almost ever since puberty. The cough generally depends upon irritation in the digestive organs—is rarely hard or sonorous, but a sort of hack often

but little noticed by the invalid himself, and vanishes as soon as its cause is removed, or in other words, when the digestive process becomes natural. When it occurs in the third species it occasions much alarm, as it is considered to be indicative of a speedy decline. But these fears should be quieted as much as possible, by pointing out the cause, and considerable relief may be given by anodynes. A lozenge, made of loaf sugar and gum arabie, and containing from one-twelfth to one-sixth of a grain of morphia may be allowed to dissolve slowly in the mouth and swallowed three or four times in the twenty-four hours with much benefit. But the best remedies for the cough are those which restore health to the digestive organs, and improve the system generally.

White Mustard Seed.—Few remedies have ever been in greater demand, for a short time, than the white mustard seed; but like most other specifics, its day of prosperity has quickly gone by, and from the lofty eminence to which public opinion had raised it, it is fast sinking into obscurity. That it is a remedy of considerable efficacy in certain cases, is attested by well authenticated facts, of course it should not be abandoned altogether, because it is not beneficial in every instance.

It has appeared to me to be useful only when the dyspepsia was depending, in a great measure, upon a torpid state of the bowels, and when its effects were to relieve this difficulty. When it does not act as an aperient, it is the cause of much disturbance by occasioning distressing flatulence, burning sensations

in the stomach and bowels, and more or less feverishness. Speaking of this article, Dr. Johnson says in a note to his work, "I have known a great number of dyspeptic invalids take it, some with advantage, others without much effect, and in a very few instances it appeared to do harm. It certainly is not calculated for a very irritable state of the gastric and intestinal nerves, since all spicy or hot aromatic substances are injurious in such cases. It is when the bowels are very torpid, the appetite bad, and the whole system languid and sluggish that the white mustard seed promises to be serviceable. If it keep the bowels open and produce no unpleasant feeling in the stomach, alimentary canal, or nervous system, it may be taken with safety. If it do not produce an aperient operation, it can do little good and may perchance do mischief."

Shampooing, rubbing, kneading, &c.—Shampooing is a remedy which we have borrowed from eastern nations, by whom it is much employed. It consists in violently kneading, rubbing, and working the part to which it is applied. In England it has been used in some complaints of the limbs and joints, and in distortion of the spine from a loss of power in the muscles of the back : in the latter disease with very considerable advantage. It is principally applicable to muscular parts whose action is impaired, and sometimes succeeds when most other means have failed. It has been stated heretofore, that the food may linger too long in the stomach, undergo fermentation, and give rise to a great variety of unpleasant sensations,

flatulence, and acidity, owing to the languid and tardy manner in which that organ contracts upon its contents. It has also been stated, that a torpid condition of the bowels, which depends sometimes in a great measure upon inactivity of their muscular coats, may occasion many of the symptoms which characterize dyspepsia, and indeed be the principal agent in producing it. In both of these cases then, provided there is no inflammatory action going on in any part of the abdomen, smart kneading and rubbing may be beneficial.

In order to act upon the stomach, it must be more or less distended ; of course, the best time is soon after eating, when by kneading from below upward, it is forced against the liver and diaphragm, and its muscular coat roused to more vigorous action. Much of the weight and uneasy feeling which the dyspeptic experiences after eating, may be often removed by this process.

The bowels can be acted on at all times, and they will be quickened in their movements by shampooing, exactly in the same way they are by the pressure and concussion which they receive in walking or riding on horseback.

But can shampooing be considered as capable of performing a permanent cure, even in those cases to which it is most applicable, without any regard to regimen ? In my opinion it cannot. Though it may relieve many of the distressing feelings occasioned by the food's lingering too long in the stomach and duodenum, and impart a temporary vigour to these organs. Wine, brandy, quinine, and various bitters will, for a time, force the stomach to increased activity, but at

last it gets weary of the spur, and obstinately refuses to obey it. So shampooing may enable this organ to perform wonders for a time, but unless the usual task it has to perform is made materially lighter by adopting a more digestible diet, little or no permanent advantage will be derived from it.

Let not the professed gourmand, the idle epicure, nor even the book-worm, the accountant, or delicate female, who never exceed one twenty-fourth of their time in active exercise in the open air, flatter themselves that shampooing will enable them to eat with impunity the hearty food that is proper for the labourer only. It may be usefully added to a proper regimen, but it is good for nothing without it. In this respect it stands in the same light with every other remedy. To suppose it applicable to all cases of dyspepsia, is as absurd as to imagine that any one medicine will cure all diseases. Mustard seed and brandy have both in their turn been considered as specifics. The first is now and then useful, the second never.

Waters of Saratoga and Balston.—To say that these waters may be ranked among the most effectual remedies for dyspepsia, would be to repeat what the experience of thousands and tens of thousands have placed beyond a doubt. They are most beneficial in the second species, and may do good in some cases of the third, but I have never seen them advantageous in the first. Where the biliary organs are deranged and the bowels sluggish, and to those who have suffered from the debilitating effects of a warm climate, they are pre-eminently serviceable, correcting the secre-

tions of the liver, keeping the bowels regular, improving the appetite, and imparting strength to the whole system.

Travelling.—No prescription is so certainly efficacious, in most cases of derangement of the digestive organs, as travelling and a regulated diet. The constant exercise, change of air and scenery, and pleasant occupation of the mind, all tend to quicken the action of the stomach, and give strength and regularity to every part of the animal machine. The dyspeptic always finds himself improved by a long journey, and though he may now and then be exposed to fatigue and inclemencies of weather, to which he is not accustomed, he is surprised to find that they seldom injure him, and he enjoys a buoyancy of spirits and activity of body to which he is a stranger when at home.

Sea voyage.—A voyage to Europe is sometimes advised for dyspepsia ; but I believe it is a mistaken idea that the voyage itself is often beneficial. The invalid is almost certain to suffer very much during his passage, from want of appetite, entire loss of tone of the stomach, and a confined state of the bowels, than which nothing is more hurtful. Acidity is often present, and as the bowels will frequently remain unmoved for eight or ten days together, unless medicine is taken, the accumulated bile regurgitates into the stomach, occasioning headach, nausea, and occasional vomiting. So much so is this the case, that many hardly eat one good meal during an ordinary passage, or if they do, are sure to reject it again.

But it may be asked, why is it that so many dyspeptics return from Europe completely restored to health? In my opinion, it is the change of climate, of scene, mode of living, and constant exercise while abroad; together with the pleasure and excitement derived from visiting countries replete with interest, and offering at every step something in the peculiarities of the inhabitants, towns, public buildings, &c. to attract attention.

APPENDIX.

THE words digestible and indigestible, as applied to the ordinary articles of food, must always be considered as relative terms. The stomach of one person will readily dissolve any thing he pleases to eat, while that of another can only master the simplest articles. Or in other words, every thing is digestible to the one and almost every thing is indigestible to the other. The cause of this difference I have attempted to explain elsewhere, and in my remarks upon the different kinds of food, shall consider them as more or less suitable for those who have weak digestion, for which class of persons they are principally intended, though those who require no dietetic rule, but who are not compelled to earn their bread by the sweat of their brow, may perhaps find them useful in preserving the tone of their stomach unimpaired.

As has been heretofore hinted at, this important organ is astonishingly influenced by habit. Thus it will in some instances, without much difficulty, dispose of very fat bacon, to which it has long been accustomed, when it would be immediately thrown into confusion by the simple sustenance most proper for an infant :

but it will generally accommodate itself in a very little time to the lighter aliment, while it is sometimes impossible for it ever to manage the more substantial.

The dyspeptic, when advised to abstain from certain kinds of food which he digests with difficulty, will sometimes inquire if there is no danger by so doing, of his losing the power of digesting them at all? Unquestionably there is, till his digestion becomes healthy. But should this be a consideration when health can never be restored without abstaining from them? As well might the man who is wasting his vital powers, and sapping the foundation of his system by daily swallowing a quart of spirits—whose bloated countenance, lack-lustre eye, and feeble and dropsical extremities already bespeak the ravages of deep-seated disease, demand if there is no danger in laying aside for a time his favourite draught, of losing the capability of taking his accustomed quantity of it. Should the invalid who eats daily half a pound of beef, live for three months on bread and milk only, and then eat his half pound of beef again, it would be apt at first to occasion some disturbance in his system; and the man who daily drinks his quart, without being actually drunk, were he to give it up altogether for three months and then return to it—would undoubtedly be overpowered with the most brutal intoxication.

But the terms digestible and indigestible must be restricted very much to the quantity ordinarily eaten; for the stomach that cannot dispose of a full meal of the lightest food, will commonly digest almost any one article if taken by itself, in sufficiently small quantity. Thus a person who cannot satisfy his appetite with the

simplest fare, without more or less subsequent inconvenience, can perhaps take one ounce of fat bacon and three ounces of bread, daily, without an uncomfortable sensation. Variety materially increases the difficulty of digestion. A person shall eat at one meal six different articles, any one of which he can take with perfect ease, and the whole shall form a mass that will completely set at defiance all the energies of his stomach. As a general rule, a weak stomach will manage a very little of almost any one of the comparatively indigestible substances, with much more ease than it can a great quantity of the most digestible.

In addition to this objection to great variety, the stomach is much more liable to be overloaded by it, than by a single article. Compare the quantity a man eats at a sumptuous banquet, where every thing that can please the eye or coax the appetite is spread before him, and what he takes at the simple repast of plain meat, bread, and vegetables. In the first place, he eats soup and bread enough for an ordinary dinner; then fish, followed by roast or boiled meat, fowl, and lastly pudding, not to mention vegetables, any one of which would satisfy his appetite. Finally, by way of dessert, he devours enough of fruits, nuts, and the countless combinations of the pastry-cook and confectioner, to constitute a feast for an eastern prince. Will any one ask whether all this farago is digested? Most certainly it is not. The stomach works away at it for a time, till at last, as if weary of its task, it drives the half-dissolved mass into the bowels, from which a large portion of it is ultimately discharged, in a perfectly unchanged state.

The explanation of all this is very simple. We have seen that the stomach contracts upon its contents as the gastric juice acts on it, and urges the dissolved parts into the bowels : now one kind of food requires double the time for its digestion that another does, of course when mixed together, instead of the less digestible remaining behind for a sufficient time, it will be carried along with the more digestible, and a considerable part of it pass into the bowels unchanged. This shows the propriety of those whose stomachs are not the strongest, confining themselves to a few articles, and those that require nearly the same time for their solution in the gastric juice, that they may be digested and expelled from the stomach at the same time. By confining themselves to a few articles, I mean not only at each meal, but for their sustenance altogether.

We have seen that of two equally digestible substances the stomach, from long habit, will dispose of the one much more readily than the other, of course, when debilitated, it should not be perpetually teased by going from one thing to another, but allowed to recover its strength by steadily adhering to nearly the same bill of fare. When not materially weakened, the stomach long accustomed to meat, will occasionally for a time, refuse to digest milk ; and that used only to fruits and light vegetables, is incapable, at first, of dissolving meat. It has been found even that those who have always subsisted on fish, though possessing the very firmest constitutions, are liable to suffer very great inconvenience from the ordinary meats, on first commencing with them. But a vigorous stomach, like

a strong man, may be habituated. I may say educated, to almost any thing, such as mastering the blubber or fish oil so commonly eaten by the Greenlander ; while a weak stomach, like a feeble man, will be very apt to break down in training to perform the feats of the stronger. From all these facts, the dyspeptic should learn the great importance of simplicity and but little variety in his diet.

I now pass to a brief examination of some of the more ordinary articles of food and drink.

Animal food contains altogether more nutriment in a given quantity, and is far more stimulating than any other kind. After a full meal of it, the action of the heart is materially increased, the pulse becomes fuller and stronger, the face is flushed, there is inclination to sleep, as is produced by stimulating drinks, and every part of the system shows marks of excitement bordering on fever. Indeed, Dr. Paris has termed it the "digestive fever." There is always more thirst than after eating vegetables, which is the effect of all stimulants taken into the stomach, and the liver is excited to pour out a larger quantity of bile. Hence it is that most persons who eat freely of meat, particularly in the warm seasons of the year, are so very subject to what are called bilious attacks. These effects are most apparent in those who have lived for some time entirely on milk, bread, and vegetables, and then return to meat, or those of a feeble constitution and nervous temperament. From these facts it must be evident, that a meat diet can seldom, if ever, be the most proper for the delicate and nervous ; and I think enough has been heretofore said to prove that it is pernicious

in every species of serious derangement of the digestive organs.

It is to be sincerely regretted that many physicians have been very much in the habit of advising a meat diet, upon the same principles that they formerly ordered bark, wine, and other stimulants, to all those who appeared debilitated, without ascertaining whether the debility depended upon an exhausted state of the system or upon an overloaded and overexcited condition of all its organs. They have at last opened their eyes to the pernicious consequences attending an injudicious use of bark and wine, and it is to be hoped, will soon become undeceived respecting animal food. So blinded have some of them been, (I regret to say it) on this subject, that in more than one instance where persons possessing good digestion, were getting very corpulent, so much so as to be extremely uncomfortable, they have advised them not to abstain from meat altogether, "lest they might become dyspeptic."

I have said that meat is pernicious in every species of serious derangement of the digestive organs, and I again entreat my professional brethren to examine this subject more fully for themselves, and I appeal to their own unprejudiced observation and experience for the correctness of my statements.

A great variety of circumstances materially influence the digestibility of the different articles of this class, such as the age, sex, diet and habits of the animal, length of time it has been killed, manner of cooking, &c. The flesh of many animals is less digestible when young, than after they have arrived at a certain age. Thus lamb and veal are not as easily digested as

mutton and beef. The two former are more stringy and gelatinous than the latter, and much less readily acted upon by the gastric juice. Of all the meats ordinarily brought to the table, perhaps beef and mutton are the most digestible. Beef when roasted or broiled, and mutton when boiled—the latter most so when cold. The flesh of the female is commonly more tender and delicate than that of the entire male; it is also considerably influenced by the manner in which the animal was fattened.

All meats are rendered more digestible by keeping some time, as the season will permit, before they are cooked. Game of every sort is much improved in this way. The lean parts of meat are far more digestible than the fat or gelatinous. Indeed, oil and jelly, though highly nutritious when digested, must be ranked among the substances that invariably bid defiance to the powers of a weak stomach. Fat pork, ducks, and geese should, therefore, be shunned by the dyspeptic, on account of the great quantity of oil they contain, and calf's head on account of its jelly. Most invalids are aware of the unwholesome nature of all fat dishes, but are not unfrequently much in error respecting broths and jellies. They see persons recovering from fevers and a variety of acute diseases, taking these last with apparent good effect, and hence they infer that they must be nourishing to those debilitated from any cause.

But the fact is, the energy of the digestive organs in him who is convalescing from a fever, bears no proportion to the general strength of the body; while in the dyspeptic, the debility of these organs bears no

proportion to that of the rest of the system. If we were to be governed by the principle that the food containing the most nutriment is most suitable for the dyspeptic, we should confine him to fat pork and turtle soup, for the labourer will tell us that nothing "stands by him so long, or enables him to do so much work as pork," and the full fed alderman is loud in the praise of turtle-soup. The flesh of wild animals, as venison, though highly nutritious, is more dense than that of domestic, but is rendered much more tender by keeping till incipient putrefaction takes place; nor is it less wholesome as supposed by some in this country, after it has become what is termed *high flavoured*, for one of the most remarkable properties of the gastric juice as we have seen, is that of correcting putrescency. The lean part of the common fowl, and the breast of the turkey are far more easily managed by a weak stomach than many kinds of meat, and the chyle which they form is less heating and stimulating; most meats are rendered more indigestible by the process of salting, drying or smoking, though this does not hold good with fat pork, for in salting, the oil or fat is in a measure solidified, of course rendered more manageable by the stomach. Every body knows the vast difference in the digestibility of fresh and salt beef; as to sausages, dried beef, pickled tongue, and every thing of this sort, they are only fit for the most vigorous stomachs. But the most important point as it respects the different meats, is the manner in which they are cooked, for the most digestible of them may be rendered indigestible by the mode of cooking, or the most indigestible materially

improved by the same means. *Boiling* :—This operation deprives the meat of a considerable portion of its nutritious properties, and is not generally the mode of cooking best calculated for a weak stomach, for meats which contain much albumen, as beef, if boiled too long, are rendered indigestible by the solidifying of the albumen, like an egg overboiled, while those which contain much gelatin, as veal, are converted into a mass too much resembling jelly to be easily digested. Much depends however, upon the manner in which the process is conducted. If kept too long at the boiling point, any meat may be spoiled, but a leg of mutton done slowly as it is termed, and not overdone, constitutes one of the most digestible dishes of meat. Something depends upon the quality of the water. Mutton is said to be best when boiled in hard water, while most vegetables (which are better boiled than any other way,) are best done in soft water.

Roasting :—Roast meats, as beef, veal, lamb, and turkey, will be easier managed by a weak stomach when roasted than boiled, if neither done too little nor too much. Meat rare done, particularly beef, of which many persons are very fond, is far from being easily digested, and when raw, requires the most active gastric juice for its solution. If overdone, it becomes too dense to be readily acted upon, and is sure to distress the invalid. It is unnecessary to say that roasting, like boiling, should be slowly conducted.

Broiling :—This operation undoubtedly renders meat more tender than any other, for the sudden application of the heat hardens the surface, and retains all the juices. It is probably of all others, the mode of cook-

ing best suited to a feeble digestion. *Baking and Frying*:—These are the most objectionable methods of dressing meat. By the first, so much oil is retained as to render it oppressive, and by the second, the oil becomes empyreumatic, than which there is scarcely an article more offensive to a weak stomach. The dyspeptic should therefore carefully avoid everything that has visited the frying-pan, as he would poison. In many parts of our country, this is a favourite way of cooking pork, ham and eggs, and sometimes beef, veal and mutton; but let not the invalid suppose that what so many thousands partake of with impunity, must of course be innocent for him,—by this mode of reasoning, he would be led to join the Greenlander in his feast of fish oil, or partake of the Tartar's repast of raw horse flesh.

Condiments.—"These," says Dr. Paris, "may be defined substances which are in themselves incapable of nourishing, but which, in concert with our food, promote its digestion, or correct some of its deleterious properties." The most important article of this class, is salt, an article that appears to be conducive to the health of all warm blooded animals, as evinced by the instinct which prompts them in the wild state, to seek though at a considerable distance, the waters which contain it. In our own country, the hunter takes advantage of this instinct in the deer, and has only to wait his arrival at the salt springs, to be sure of his game. Salt is a stimulant to the digestive organs, which seems intended by nature to perform a highly important office, as most animals, if deprived of it entirely, soon become sickly.

Persons who take too little salt with their food, are invariably infested with worms; and many diseases among the poorer classes of England and Ireland, are attributed to the want of it. Indeed, it is said that the most severe punishment formerly inflicted in Holland, was to confine criminals to bread alone, which contained no salt, and we are told they were at last devoured by worms engendered in their own bodies. Children who eat freely of salt, are generally exempt from many of the complaints attributed to worms, and a draught of salt and water is a popular and very efficacious remedy for some of the symptoms occasioned by them. Our appetite for all other condiments, is probably in a great measure, if not entirely factitious, and they can be dispensed with without injury, but salt is doubtless indispensably necessary to the preservation of health. Vinegar is evidently wholesome to most persons if taken in moderation; but there are those to whom it is injurious. It prevents the fermentation and consequent inconvenience occasioned by many raw vegetables, and appears to render oily and gelatinous articles more digestible. By the dyspeptic however, it should be rarely tasted, as it is too stimulating for his enfeebled organs.

Pepper, cinnamon, nutmeg, cloves, ginger, mustard, and every thing else of this sort, are allowable in moderation to persons in good health; mixed with many indigestible articles, they rouse the stomach to greater efforts in disposing of them; but taken too freely, they greatly weaken its powers. As those who have feeble stomachs should never eat articles that require high seasoning to render them digestible, nei-

ther should they take any considerable quantity of spices of any description. Sugar in moderation is harmless to almost every one. The refined article is most suitable for acid stomachs, as the species commonly called brown or muscovado sugar contains considerable free acid, which renders it liable to ferment. The same remark applies to molasses; but when they do not disagree with the stomach, they are slightly aperient. Oil in very small quantities seems to render salads less liable to ferment, but should be eaten only by the robust.

Fish constitutes a diet much less heating, and less nutritious than the flesh of warm blooded animals. When the stomach is vigorous and healthy, it does not require as much time for its digestion, nor does it long satisfy the appetite. From the circumstance of its being much less stimulating than beef or mutton, it requires a greater addition of condiments, as salt and vinegar, and though its flavour is improved by drawn butter, it is rendered extremely indigestible by it. For many invalids, it forms a very suitable diet, but it will seldom if ever, agree with dyspeptics. Of this fact, most of those who are very observing are aware. For them it is evidently less digestible than beef or mutton, and seems to fatigue and irritate the stomach much more. Dr. Johnson says the plainest white fish is far more likely to disagree with the dyspeptic than animal food, and some of the severest attacks of indigestion he ever witnessed were caused by fish. Some of the species of fresh water fish, as trout, are perhaps least objectionable; but nothing is more common than for tolerably strong stomachs to be

deranged by a dinner of salmon. On the whole then, fish, though a very wholesome food for the healthy, cannot be considered as at all suitable for the dyspeptic invalid.

Shell fish.—It is commonly supposed that oysters are very light and digestible, and that “even an infant may eat them with safety.” But Dr. Paris says they “enjoy a reputation they do not deserve; when eaten cold, they are frequently distressing to weak stomachs, and require the aid of pepper as a stimulant, and since they are usually swallowed without mastication, the stomach has an additional labour to perform in order to reduce them to chyme. When cooked, they are still less digestible, on account of the change produced upon their albuminous principle.”

Turtle, lobsters, and crabs are highly nutritious, and quite as indigestible. None but the most healthy and active should indulge in them. Even with these, a single dinner of turtle-soup, or a supper of lobsters will occasionally bring on a fit of indigestion,—of course they are extremely pernicious for invalids.

Eggs.—The digestibility of eggs depends in a great measure upon the manner in which they are cooked. If boiled from two to three minutes, they sit pleasantly on most weak stomachs, and are very easily digested, when boiled too long, they become converted into a solid mass, that nothing less than a very strong gastric juice can dissolve. When raw, they are a little laxative, but not as digestible as when lightly boiled. Custard prepared from them, is a comparatively innocent article.

Milk.—Of this article I have had occasion hereto-

fore to express my opinion as it respects its suitableness to the condition of the dyspeptic. It may be readily separated into three constituent parts, cream, curd, and whey. None of which however appear to agree with weak stomachs generally so well as entire milk.

It is a peculiar property of the gastric juice, as we have seen, to separate the more solid parts of the milk from the thinner by coagulation. The thinner are absorbed, and the solid readily digested, and the stomach seems to prefer performing this operation itself, as it will be often oppressed by curd artificially prepared, and whey will sometimes turn sour upon it ; as to curd, when manufactured into cheese, it is undoubtedly one of the most indigestible articles in common use, and in a great many persons passes through the alimentary canal, and is discharged in the most entire and unchanged state. Butter when perfectly sweet, may be allowed in moderation to the great majority of persons, but when rancid, is very unfriendly to the dyspeptic. With those who are subject to acidity, even the best butter in any considerable quantity, is sure to disagree, of course should be cautiously eaten if at all, by those who suffer from the first species. What is commonly called drawn butter, may be properly set down as rank poison.

Farinaceous food.—*Bread* in this country is principally made of the flour of wheat, rye, and Indian corn. That made of wheat is the lightest and most digestible ; but if the flour is finely bolted, is apt to constipate the bowels of some persons. This defect however, can be entirely remedied by leaving the bran in the flour—that is, by making the bread of unbolted flour.

and is then perhaps the best for most dyspeptics. Rye bread is less digestible than wheat, but when it can be borne on the stomach, is decidedly aperient. Bread made of indian corn, and what is called rye and indian, is for the healthy a very wholesome and nutritious food, but will not agree with a large portion of weak stomachs as well as the bran bread made of wheat. It is sweeter, and sufficiently aperient, but forms a more glutinous mass which appears not to be so readily acted upon by the stomach. It is important that bread should be light, though not allowed to ferment till it becomes acid, and well baked. New bread should never be eaten by the invalid, and is far less wholesome for those in health, than that which has been baked twenty-four hours. There is also a material difference as it respects dyspeptics, between leavened and unleavened bread. The description of unleavened bread called sea biscuit or pilot bread, will generally agree with the stomach, when the other does not, and is undoubtedly one of the most digestible articles of food, and sufficiently nutritious of itself to maintain the healthy condition of the body. "The importance of bread as an article of diet," says Dr. Paris. "will be easily deduced from the principles upon which the digestion of food in the stomach has been already explained. In addition to its nutritious qualities, it performs a mechanical duty of some importance. It serves to divide the food, and to impart a suitable bulk and consistence to it; it is therefore, more necessary to conjoin it with articles containing much aliment in a small space, than where the food is both bulky and nutritive." *Rice* supplies the place of

bread to the inhabitants of a large portion of Asia, and is a very useful addition to the dyspeptic's bill of fare. It contains a large quantity of bland mucilage, which renders it particularly proper where there is much irritability of the alimentary canal. Arrow-root, sago, and tapioca, are also highly valuable articles in similar cases.

The Potatoe, as is well known in Ireland, furnishes sufficient nutriment to sustain the human system, even when constantly subjected to fatigue. It is never in perfection, but when it becomes dry and mealy by boiling a suitable time. When at all waxy, it is exceedingly unwholesome. Many dyspeptics cannot eat potatoes, but it is often owing to their being of a bad quality, or not properly cooked. When perfectly mealy they are certainly very digestible, but even then will not agree with all. *Peas* and *Beans*, when full grown and ripe, are very indigestible, and invariably produce flatulence. Green peas, if not too old, will not often offend a weak stomach if eaten in moderation. *Beets* and *Carrots* are improper for the dyspeptic, but he may eat sparingly of turnips well boiled, and the watery part separated by pressure, or of onions boiled in milk and water, (or in water alone if changed once or twice,) till they lose their strong flavour. *Parsnips* are less objectionable than beets and carrots. *Cabbage* is only fit for healthy people, and all the varieties of crude vegetables, as *radishes*, *cucumbers*, *celery*, *lettuce*, &c., are poisons to a feeble stomach. *Asparagus* when young and tender, is not of difficult digestion, and may be eaten by most invalids.

Fruits.—I have had occasion to mention the perni-

cious effects of indulgence in fruits when the digestion is weak, particularly when there is a tendency to acidity ; but there are some kinds, of which the invalid may occasionally eat a small quantity with safety. The most proper time for eating fruits, is the morning and evening ; but it never should be tasted immediately after dinner, as it is sure to interfere with digestion. Perhaps the most digestible when raw, are the orange, the mellow peach, and the strawberry. The orange, if the pulp is avoided, may be allowed to the weakest stomach. Apples are perfectly innocent when roasted, and may be eaten with advantage by those who suffer from the second and third species. The skins of all fruits are very indigestible, and those fruits that have been dried, as raisins, prunes, &c., should be generally avoided. Grapes are harmless if the skins are not swallowed, and gooseberries may be eaten under similar restrictions. Cherries and plumbs are comparatively unwholesome. Melons are commonly hurtful. Most kinds of preserved fruits, and every thing in the shape of sweatmeats, must be carefully shunned. Finally, the digestibility of fresh fruits depends very much upon their texture ; thus a mellow apple or pear is tolerably digestible, while those that are hard, are not at all so ; when unripe, nothing is more pernicious.

Drinks.—It is unnecessary to say, that a certain quantity of fluid is as requisite to the well-being of the body as solid nutriment ; or to attempt to prove that water, pure unadulterated water, is at once the most natural and wholesome beverage. These are points admitted by all. Yet the vitiated taste of civilized

man is no longer satisfied with the cool stream, but must be pampered and stimulated with a vast variety of drinks. When any aqueous fluid is taken into the stomach, it is almost immediately absorbed and carried into the circulation. If the quantity be large, the secretions of the skin and kidneys are suddenly increased. Thus in warm weather, a glass of water will almost instantaneously perceptibly increase the perspiration. Hot fluids of all kinds, though sometimes refreshing in their immediate effects, are ultimately weakening to the stomach, and those reduced much below the temperature of the atmosphere are equally so. When the system is greatly exhausted by heat and fatigue, a draught of cold water will sometimes rob the vital organs of what little energy remains to them, and death is the consequence.

Most writers agree that the best period for supplying the system with the fluid it requires, is sometime before and after meals, that is, if our food be not too dry. "By drinking before a meal," says Dr. Paris, "we place the stomach in a very unfit condition for the duty it has to perform. By drinking during a meal, we shall assist digestion if the solid matter be of a nature to require it, and impede it if the quantity taken renders the mass too liquid." The dyspeptic should take drink in very small quantities at his meals, as the food most proper for him is easily rendered too fluid for the stomach.

Toast water will sometimes agree with a very weak stomach better than plain water, and is always a wholesome and agreeable beverage.

Barley water is an invaluable drink when there is

any irritation in the system, and is particularly useful in the second and third species of indigestion.

Gruel.—The best gruel is made of oatmeal, and when it is taken as a demulcent drink, may be made by mixing together one tablespoonful of oatmeal and three of cold water, and then adding a pint of boiling water, which is to be boiled for five minutes, stirring it constantly to prevent its burning at the bottom of the vessel. When it is desirable that it should be more nourishing, double the quantity of oatmeal may be treated in the same way, and milk may be added.

Coffee and *tea* are both stimulating and narcotic. They perceptibly excite the stomach, and act powerfully on the whole nervous system. Most persons of a nervous temperament are more or less exhilarated by them, and not unfrequently pass a sleepless night after drinking them in the evening. To such persons they are very injurious, particularly if they are dyspeptic, notwithstanding they of all others experience the most refreshing and pleasurable sensations after taking them. To those who suffer from acidity, they are poison, and but little less to all who are any way nervous. The least objectionable article of this kind is black tea, but it is seldom preferred by the tea-drinker, for the same reason the dram-drinker does not prefer claret to strong wine or brandy—it is comparatively but little stimulating.

Pernicious as these articles are to a large portion of invalids, there appears to be no good reason why the healthy and robust, especially if engaged in active pursuits, should not use them in moderation. Indeed,

we probably owe much to their effects in promoting temperance in the use of more objectionable stimulants. Coffee, taken immediately after dinner, undoubtedly quickens the action of the stomach, and promotes the digestion of fat or oily substances.

Chocolate is so very indigestible and oppressive to the stomach, that few dyspeptics will be inclined to partake of it often. It is highly injurious to most invalids.

Cider, particularly if mingled with water, is a refreshing beverage, and not unwholesome for the healthy, but should be cautiously taken by those who have weak stomachs, as it is apt to excite acidity.

Malt liquors.—All the articles of this class, with the exception of small beer, are unquestionably detrimental, even to the most healthy in our climate during the warm seasons of the year. They contain very indigestible materials, which are certain to disturb most weak stomachs, and are apt to occasion plethora and its consequences, biliary derangement, &c. Even in the climate of England, which is much cooler than our own, malt liquors are considered by some of the most eminent of the medical profession as the undoubted cause of a vast many complaints.

Wines, particularly the light wines, if sufficiently diluted, cannot be considered as unwholesome if used in moderation by persons in ordinary health; but it must be evident, if the principles heretofore laid down be correct, that they are, more or less, hurtful to the dyspeptic.

As to all distilled liquors, the word *poison* should be

written, in large characters, upon every vessel containing them, and well would it be for mankind if they were always associated in the mind with opium, arsenic, and prussic acid. Perhaps I cannot better close this article than by translating the remarks of Leuret and Lassaigue upon the immediate effects which take place in the stomach after drinking any alcoholic liquor. "If we open an animal some time after having made him swallow a spirituous drink, such as brandy, wine, beer, or cider, we find the internal membrane of the stomach and intestines covered with abundance of thick mucus, and the liquor itself become entirely acid. At the same time, if the quantity of brandy or wine had been considerable, and we open the animal at the end of a quarter of an hour, for example, we yet obtain a little alcohol in a state of purity. The transformation of alcoholic liquors is very easy to be conceived, since we know that if they are suitably weakened and mixed with animal matter and exposed to a temperature of from ten to thirty degrees (Reaumur's thermometer) they are decomposed and become acid. If the presence of brandy, wine, &c. occasions an abundance of juices, both acid and charged with mucus, to flow into the stomach, the temperature being above thirty or thirty-two degrees, these liquors ought to be very promptly changed. It is then in the acid state that spirituous drinks pass into the duodenum. We have seen, heretofore, that when an acid was in contact with the inner surface of the intestines, and the orifice of the biliary and pancreatic ducts, its immediate effect was to produce the secretion of the li-

quids which come from these different parts, which necessarily takes place in the case in question ; and the frequency of gastro-enteritis (by this term is meant derangement of the stomach and bowels, with irritation or inflammation of their inner surfaces) after a fit of drunkenness, is the necessary effect. An equally natural and frequent consequence of repeated excesses in drinking, is chronic inflammation of the liver and engorgement of that organ, determined by the over-excitement, which occasions it to secrete and pour bile so often and in such abundance into the duodenum."

THE END.

